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SYLVA FLORIFERA:

THE

Shrubbery

HISTORICALLY AND BOTANICALLY TREATED;

WITH

OBSERVATIONS ON THE FORMATION OF

ORNAMENTAL PLANTATIONS,

AND

PICTURESQUE SCENERY.

8850

By HENRY PHILLIPS, F.H.S.

AUTHOR OF POMARIUM BRITANNICUM,
AND HISTORY OF CULTIVATED VEGETABLES.

Wb. b. 2

Sylva nemus non alta facit: tegit arbutus herbam:
Rosmaris et lauri, nigraque myrtus olent.
Nec densæ deerunt buxi, fragilesque myricæ,
Nec tenuis cytisi, cultaque pinus abest. OVID. *Ars Am.*

IN TWO VOLUMES.

VOL. I.

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TO

MRS. HENRY PHILLIPS.

THE dedication of a work is the highest mark of respect that an author has the power of bestowing on an individual. He, therefore, naturally turns towards those, where his reverence, esteem, and affections are fixed.

And as it is now about a quarter of a century, since we have journeyed together over roads, sometimes sprinkled with flowers, and often strewed with thorns, the latter of which you have so invariably passed with fortitude and cheerfulness, as to set me an example of patience and perseverance: Hence, I flatter myself, you will receive with pleasure my labours in the Sylva Florifera; as it will prove my endeavours to dissipate the grief

that has so heavily befallen us since the commencement of this work, which was intended for your amiable and accomplished pupil; the loss of whom has fixed the cypress too firmly in our bosoms ever to be entirely eradicated: but as the study of vegetable nature is one of the best cordials for sorrow, accept, dear madam, the nectar its flowers offer, which has proved so great a balm to

Your devoted and affectionate Husband,

HENRY PHILLIPS

Bedford Square,
Brighton.

PREFACE.

THE Planter of the *Shrubbery* has endeavoured to dispose his trees and form his groves in a manner that may render his walks agreeable to every age and class, that may be disposed to seek information or amusement among the various plants of the Sylva Florifera. Should his efforts fail of success, he will at least enjoy the consciousness of having attempted to please all the admirers of Nature's works, by studying to render every common an interesting pleasure ground, and every hedge a pleasing plantation, by the information he has endeavoured to collect respecting the plants that flourish in them.

The author has also tried to make his book an agreeable companion to the traveller, who, as he passes through woods and lanes, may never feel himself solitary, but have his

way enlivened by vegetable history and botanical beauties. These by their connection with anecdote, and their poetical celebrity, may agreeably beguile his time as he journeys by the humble bushes of the road, or the proud natives of the forest.

To those who tread the flowery paths of ornamental gardens, the writer would wish the secrets of each blossom to be fully expanded, that the wisdom of the Creator may always shine conspicuous in their walks. Thus also, the plants themselves may invite the youth and the fair to the study of botany, by exhibiting the beauty and simplicity of that science.

For the information of those who are forming landscape plantations, the author has assigned to each tree and shrub its proper station, and noticed the tints of its natural robe, with observations intended to assist the planter in effecting a harmony of colouring and an undulating appearance in the grove.

——— *Non Chaonis abfuit arbos,*
Non nemus Heliadum, non frondibus esculus altis,
Nec tiliæ molles, nec fagus, et innuba laurus,
Et coryli fragiles, et fraxinus utilis hastis,
Enodisque abies, curvataque glandibus ilex,
Et Platanus genialis, acerque coloribus impar,
Amnicolæque simul salices, et aquatica lotos,
Perpetuòque virens buxus, tenuesque myricæ,
Et bicolor myrtus, et baccis cærula tinus;
Vos quoque flexipedes hederæ venistis, et unà
Pampineæ vites, et amictæ vitibus ulmi:
Ornique, et piceæ, pomoque onerata rubenti
Arbutus, et lentæ victoris præmia palmæ:
Et succincta comas, hirsutaque vertice pinus
Grata Deûm matri ———

OVID. Metamorph.

"Much can we praise the trees so straight and hy,
The sayling pine; the cedar proud and tall;
The vine-propt elme; the poplar never dry;
The builder oake, sole king of forrests all;
The aspine, good for staves; the cypresse funerall;
The laurell, meed of mightie conquerours
And poets sage; the firre that weepeth still;
The eugh, obedient to the bender's will;
The birch for shaftes; the sallow for the mill;
The mirrhe sweete-bleeding in the bitter wound;
The warlike beech; the ash for nothing ill;
The fruitful olive; and the platane sound;
The carver holme; the maple, seldom inward sound."

SPENCER's *Faerie Queene*, Book I. Canto 1.

INTRODUCTION.

"And let us to our fresh employments rise
Among the groves, the fountains, and the flowers,
That open now their choicest bosomed smells,
Reserved from night and kept for thee in store."

MILTON.

THE shrubbery is a style of pleasure-garden which seems to owe its creation to the idea that our sublime poet formed of Eden. It originated in England, and is as peculiar to the British nation as landscape-planting. Whilst other arts have been derived from ancient or borrowed from modern inventions, this has indisputably sprung from the genius of our soil, and is perhaps one of the most delightful, as well as most beneficial, of all that claim the name of elegant.

Ornamental plantations are now so universally spread over the face of this country, that our island may be compared to a vase

emerging from the ocean, into which the Sylvans of every region have set their favourite plants, and the Flora of every climate poured her choicest gifts, for the embellishment of the spot round which Neptune throws his fostering arms. Our ambition leads us to hope that we may add pleasure to the pleasure-ground, by pointing out the beauties of the shrubbery, which must render vegetation an object of admiration and veneration to all classes. We wish to attract attention to the peculiar pleasing properties of each plant by the remarks of the ingenious, the anecdotes of the ancients, the harmony of the poets, the observations of the physicians, and the reflections of the moralists of all ages. Morality, however, of a gloomy cast will be avoided; for our wish is to give the work, like the subject, a smiling aspect.

Though flowering shrubs seem to contribute nothing to pottage, and but little to medicine in its present refined state, yet they add greatly to our pleasure, and considerably to our health. They win us to good humour by their fragrance and cheerful appearance, and produce a serenity of mind by the calm reflections they present to it; thus assisting to relieve the maladies of the

soul, as drugs mitigate the grosser and more perceptible sufferings of the body.

" The spleen is seldom felt where Flora reigns,
The low'ring eye, the petulance, the frown,
And sullen sadness, that o'ershade, distort,
And mar the face of beauty, when no cause
For such immeasurable wöe appears:
These Flora banishes, and gives the fair
Sweet smiles and bloom less transient than her own."

COWPER.

We shall notice the allegorical allusions which the eastern nations are accustomed to make by means of flowers, and the fables of the ancient poets and mythologists respecting plants. Thus, pleasing ideas may be connected with pleasing objects, and agreeable images convey lively but moral sentiments to the mind, adding to the charms of the country without recourse to romance and useless fiction. These accustom the mind to such violent sensations, that at last it is obliged to resort to an excess of feeling, either of mirth or grief, to prevent that dreaded fashionable lethargy of spirit—*ennui*. Such a habit in the end injures health and consequently shortens life, as much as a calm but cheerful state of mind assists in the prolongation and enjoyment of both: —

" Come, then, ye blissful scenes, ye soft retreats,
Where life flows pure, the heart more calmly beats."

DELILLE.

It would seem, that the more terrible a sight, and the more violent an impression, the more agreeable to the greater portion of mankind, who run with avidity after objects of horror, whilst they pass unnoticed those which produce gentle and agreeable sensations, and would to all appearance rather tremble at the awful thunderbolt of Jupiter, than calmly admire the bounteous horn of plenty. It has been observed, that the volcano near Naples attracts more travellers to the city than the delicious gardens which adorn the shores of that region. The plains of Greece, overspread with ruins, would entice many to undertake a voyage to a distant country, who would feel but little inclined to travel over their native soil to view its richly cultivated lawns; and there is no doubt, but that formerly, where one person went to Egypt to be a witness of Nature's bounty to that nation, five hundred became travellers to behold the Pyramids. A temple after it's fall excites more eager curiosity than it did during its construction; and many who will not cross their thresholds to look at a beautiful calm in Nature, will rush to get a sight of a storm and shipwreck in a play-house. This love of the terrific is not, as has been asserted by foreigners, peculiar to the

English nation: it is prevalent every where. The author observed an instance of it when in Paris, in the summer of 1822. Wishing to visit the celebrated garden of M. Bourseau, which is unequalled for the beauty of it's plants by any city-garden in Europe, he received in anwer to all enquiries for direction to the spot, the usual careless but short and decisive, *Je ne le connois pas, Monsieur*; but on asking the way to *La Mort*, every turn and alley were readily pointed out with all the bustle and officiousness of French politeness.

In this history of flowering trees and shrubs, there is nothing terrible to present to the reader; but every endeavour has been used to

"Shew Nature's form in smiling beauty drest,
And call mankind to view her and be blest."

DELILLE.

It seems hardly possible for any mind to be so debased as to be insensible to the effects of Nature, whose vegetable charms become more endeared to us as our age and reflection increase. A more delightful cabinet of natural history can scarcely be formed, than the shrubbery affords, even when unadorned by exotic beauties. It offers matter for contemplation of the most agreeable kind, which varies still as seasons

revolve; and as every tree and shrub has it's peculiar inhabitants, we have at the same time a collection of animal and vegetable wonders, that are sufficient to occupy all the leisure which our economical duties allow us. As years increase, a taste for most pleasures in general diminishes. Those of the court become fatiguing; the charms of the table appear to lessen; and as passion subsides and love languishes, the gay ball and splendid opera lose their delights; but the fondness for a garden increases, and is almost the only pleasure that does increase. Let us not, then, neglect to cultivate a taste for what will form the delight and amusement of the latter period of life. Every tree we plant adds to the entertainment we prepare for future years, for ourselves, our friends, and successors.

Should particular times and circumstances require a retrenchment to be made in domestic expenses, it should not begin with the garden. This once neglected or laid aside, cannot soon or with small cost be re-established. There are other more expensive and less profitable indulgences, which may be lessened without injury; nay, perhaps, with benefit to an establishment. By giving one entertainment less each season in London,

more might be saved than by ruining a whole pleasure-ground, — the only means of subsistence to a few poor labourers, whose consequent discharge exposes them to want, and all the evils that accompany it.

The introduction of a useful or ornamental plant into our island is justly considered as one of the most important services that a person can render his country; for it is impossible to calculate on the benefits that may be derived through his means, when the qualities of the vegetable are ascertained and it's virtues known. Even what is introduced and planted merely from curiosity or ornament seems to unite us to the nations from whence it comes. It bestows on us a share of the blessings of other climates, and affords us a portion of the smiles of a more genial sun. When, therefore, we dwell on the beauty of exotic trees and shrubs, we wish to be understood as expressing our gratitude to those who have enriched our land with additional charms, and more fully displayed Nature to our eyes, and not as disregarding the plants that are indigenous to our soil. We are aware that many an Englishman has sighed under the shade of the banana, for a sight of his native banks, where the primrose sparkles through the hazel-hedge, and

the violet peeps so modestly. The plants of our country recall the idea of it in the most forcible manner, wherever we meet them. They are often the first objects that attract the attention of those who have been long absent from their native fields, and who on their return pour out the genuine effusions of joy on beholding the village-elm, the well-known oak, or the unchanged yew, whose antiquity is equal to that of the church it shades. We are told of a young Indian, (Pontaveri from Otaheite,) who, in the midst of the splendor of Paris, regretting the simple beauty of his native island, sprang forward at the unexpected sight of a banana tree in the Jardin des Plantes, embraced it, while his eyes were bathed in tears, and exclaiming with a voice of joy, "Ah! tree of my country!" seemed, by a delightful illusion of sensibility, to imagine himself for a moment transported to the land which gave him birth.

We seem as it were for an instant to go back to the delights of infancy, when, on each succeeding spring, we visit the meadows covered with cowslips, which afforded us so many happy hours in childhood, as we formed balls of their blossoms. Then the playful girl, bedecked with wreaths and necklaces of daisies, led her little swain in chains formed of the

milky flower-stalks of the dandelion; but who at the sight of a butterfly burst the brittle bonds and scampered away, to return, perhaps, a few years after, sighing and entangled in fetters not so visible, but more binding.

There is no part of Nature's works more interesting than flowers. They seem intended for the embellishment of our fair, and for the ornament of the spot where they tread. Their sweet perfumes have such influence over all our sensations, that in the midst of flowering shrubs the most acute grief generally gives way to the sweetest melancholy. When our home and domestic companions are encompassed by the shrubbery, our situation then approaches nearest to a terrestrial paradise. Is it not, then,

"Strange, there should be found,
Who, self-imprisoned in their proud saloons,
Renounce the odours of the open field,
For the unscented fictions of the loom;
Who, satisfied with only pencilled scenes,
Prefer, to the performance of a God,
Th' inferior wonders of an artist's hand?
Lovely, indeed, the mimic works of art;
But Nature's works far lovelier."

COWPER.

The shrubbery is to a rational mind a source of inexhaustible delight and instruction, where each season brings new joy, and every morning a fresh harvest of delightful sweets. Sub-

jects for new thoughts and contemplations present themselves to our view, and even the most dreary months still supply causes of admiration, and discover a world full of wonders; for

"E'en Winter oft has seen it gay,
With fretted frost-work spangled o'er,
While pendants drooped from every spray,
And crimson budlets told, once more,
That Spring would all its charms restore."

It is not to old age alone, that the garden offers its placid delights. Every stage of life, from the cradle to the grave, is attracted by it's charms. The infant is ready to spring from it's nurse's arms, allured by the gay colours which flowers exhibit. They form the most innocent toy of childhood, and the cultivation of them is generally it's first labour, whilst their presentation often explains the passion of youth. The happy belle loves to entwine them in her locks, and the fond parents delight to see their child mimic their beauties with the pencil:

"The flowers which grace their native beds,
Awhile put forth their blushing heads;
But, e'er the close of parting day,
They wither, shrink, and die away;
But these, which mimic skill hath made,
Nor scorched by suns, nor killed by shade,
Shall blush with less inconstant hue,
Which art at pleasure can renew."

LLOYD.

The representation of flowers is the proper style of drawing for the softer sex. In this attempt they will succeed, and by this study will afford us a delight which they cannot do, when, " o'erstepping the modesty of nature," and the limits of their proper employments, they present us with specimens of their proficiency in the science of anatomy. A pursuit like this is often too bold, and the subjects sometimes too masculine, to suit the feelings of those who can never be admired for acting and feeling like men. But flowers are the peculiar province of the fair, and the nearer their imitation approaches to nature, the more it delight us; which paintings of murders, massacres, deaths, and agony, certainly cannot. The beauty and grace that may be displayed in grouping flowers, united with the gaiety of their colours and the harmony of their tints, are objects well worthy the attention of those who were born to render life delightful. The neatness, nicety, and patience required in finishing flower-pieces, seem to demand the delicate hand of a female artist.

" Oui, beaux arts, oui, la femme, employant vos secrets,
Même sans être vue, ajoute à vos attraits.
Des fleurs par Valayer sur la toile jetées,
On est prêt à cueillir les tiges imitées."

LEGOUVÉ.

We have seen many delightful pieces of fruit and flower sketches by ladies, but do not recollect instances where they have completely succeeded in the delineation of the human figure; and have known many become disgusted by a vain attempt, when they might have fully succeeded, and been well amused, had they commenced that branch of the graphic art which so peculiarly suits them. We are aware that our opinion may be objected to by the generality of drawing masters; but we write as a parent for parents, and can feel for those whose time has been vainly wasted in endeavouring to follow, with unequal steps, some of the boldest designs of man.

"But softer tasks divide Florella's hours;
To watch the buds just opening on the day;
With welcome shade to screen the languid flowers
That sicken in the Summer's parching ray.
Oft will she stop amidst her evening walk,
With tender hand each bruised plant to rear,
To bind the drooping lily's broken stalk,
And nurse the blossoms of the infant year."

BARBAULD.

The description, by Moses, of the garden of Eden, the first abode of first created man, formed the outlines which Milton has so splendidly enriched with all the imagery of poetry. From this have been copied the plantation, the park, and shrubbery, so justly the pride of the nation, and so properly the

abode of it's beauty. The Greeks devoted their terrestrial groves, as well as celestial gardens, to the gods; but the Mahometans reserve their flowery lawns and umbrageous bowers for scenes of future bliss to mortal believers. We, however, more prudent, should wish to, collect all such blessings, which bounteous Nature has scattered over the globe, and in this present life form a modern garden, worthy of the Hesperides, and deserving of, though not requiring, a dragon to guard it.

"——— Much I love,
To see the fair one bind the straggling pink,
Cheer the sweet rose, the lupin, and the stock,
And lend a staff to the still gadding pea.
Ye fair, it well becomes you. Better thus
Cheat time away than at the crowded rout,
Rustling in silk, in a small room close pent,
And heated e'en to fusion; made to breathe
A rank, contagious air, and fret at whist,
Or sit aside to sneer and whisper scandal."

Village Curate.

Some of the pleasure gardens of antiquity were created for, and devoted to, the pleasure of the softer sex. Solomon has celebrated those of Jerusalem in song, and the extraordinary gardens of Babylon appear to have been formed by Nebuchadnezzar for his Median queen, who, we are told, could not become reconciled to the flat and naked appearance of the province of Babylon; but

frequently regretted each rising hill and scattered forest which she had formerly delighted in, with all the charms they had presented to her youthful imagination. The king, to gratify his consort, within the precincts of the city raised terraces and planted woods, in imitation of those that diversified the face of his queen's native country. Thus originated those gardens, which, for their singularity and comparative extent, were considered one of the wonders of the world. Their base covered four acres of land, and the height of them was so considerable, that they resembled a pyramidical mountain covered by a forest. The upper area, which was about thirty feet square, was about three hundred feet distant from the river Euphrates, that washed the base of the stupendous superstructure.

This towering pleasure-ground overlooked the whole city and surrounding country, as far as the eye could reach. Each terrace was covered with earth and planted with trees, so as to form a series of ascending groves; and every platform supported rural seats, fountains, and sumptuous banquetting rooms, on which all the splendor and luxury of eastern magnificence were lavished.

This edifice was constructed by immense stone beams laid on pillars of stone, the first

flat being a square of about four hundred feet each way; these flats or stories lessening in surface as they increased in height. The stones were first covered with reeds cemented together by bitumen. On this covering was laid a double row of bricks united by cement, which were then covered also by sheets of lead, in order to prevent the moisture from penetrating downwards; and these sheets lastly sustained a depth of earth sufficient for the plantation of trees and shrubs. We are told that this elevated shrubbery was watered by fountains, the water of which we presume to have been conveyed into it by manual labour, as skill in hydraulics appears to be an acquirement of later times; and perhaps the ancient Egyptians, from their peculiar situation and circumstances, were the only people who attended at that period to the science.

We have noticed these gardens of Babylon, to show that pleasure-grounds have existed from the earliest ages in civilized countries. As the arts have flourished or been neglected, so have gardens flourished or decayed.

The Romans would naturally attach to their villas in this country a similar style of garden to that which they had been accustomed to in Italy. But this would be lost in baronial times, when nothing was secure outside the

castle walls. However, gardens of considerable extent were joined to the convents and monasteries of England; and we find that the cultivation of flowers and shrubs was attended to by most of the religious recluses of those establishments, as well as that of fruits, pot-herbs, and medicinal plants.

The citizens of London had gardens to their villas as early as the time of Henry II., which Fitz-Stephen tells us were "large, beautiful, and planted with trees." In Cerceau's Architecture, which appeared in the reign of Henry III., every ground-plot was laid out with plans of labyrinths and parterres.

The royal gardens of Nonsuch in Surrey, were formed in the time of Henry VIII. The privy gardens of that palace were planted with flowering shrubs and fruit-trees, and ornamented with basins of marble, fountains, and pyramids. The gardens of Hampton-Court were also planted about the same period, by Cardinal Wolsey; and from that time to the present, the taste for ornamental trees and shrubs has continued to increase.

Charles II. returned from the Continent with a taste completely French; and Evelyn also, from his travels through France and

Italy, during the Commonwealth, imbibed similar ideas. Thus our plantations at that time consisted entirely of long, dull avenues, and our pleasure-gardens of clipped hedges, walks laid out upon geometrical principles, and ever-green trees shorn into fanciful and ridiculous figures. Le Notre, who planned the celebrated gardens of Versailles, came over at this time to England, by desire of Charles, to plant the parks of Greenwich and St. James's.

Early in the eighteenth century, the formal and heavy style of gardening which had for some time prevailed, was changed by the united efforts of the English poets and painters of the day. By their pure taste and united efforts, they gave birth to that classical style of planting which has since been so much admired and imitated throughout the most refined parts of Europe.

Whilst Addison was forming a rural garden at his retirement at Bilton near Rugby, Pope was employed in laying out a picturesque plantation at Twickenham. At the same time, with their pens they engaged in open war against the right angles and disfiguring shears of the gardeners of their day, against whom they levelled some of the keenest

shafts of their ridicule. These geniuses were seconded by Kent, who, as a painter and architect, was admirably adapted to embody their imaginations. In his capacity of landscape planter, he laid out the grounds of Claremont and Esher, about the year 1730; and as he painted the hall at Stowe, it is probable that he assisted Lord Cobham in the grouping of his plantations also, which had been commenced on the modern plan about the time that Pope was occupied in forming his gardens at Twickenham. Kent was followed in succession by Wright, Brown, Holland, and Repton, who brings us down to the present day.

As this work will include the history of the trees that grace the park, as well as the shrubs that ornament the lawn, we shall proceed to make some brief remarks as to the antiquity of these enclosures. The Persians of old had parks, called by the Greeks *paradeisoi*, which contained animals for the chase; and the Romans had similar enclosures, *habitationes ferarum*, or habitations for beasts of the chase. It is generally supposed, that the park of Blenheim is the site of grounds that were once used by the Romans for hunting. It is also conjectured to be the

same spot which formed the park of Henry I., who, we are told by H. Huntingdon, had a park at Woodstock. *

The word "park" is originally Celtic, and like the French word *parc*, signifies an enclosed spot for the confinement of animals. "No man can now," says Wood, "erect a "park, without a licence under the broad "seal; for the common law does not en- "courage matters of pleasure, which bring "no profit to the Commonwealth. But there "may be a park in reputation, erected with- "out lawful warrant; and the owner of such "park may bring his action against persons "killing his deer." It is considered in law to be no longer a park when all the deer are destroyed, for a park must consist of vert, venison, and enclosure; and to pull down park-walls or pales, subjects the offender to the same punishment as killing deer.

It will be necessary now to make some observations on the formation and planting of

* Chaucer, the father of English poets, thus notices a park in the time of Edward III.:—

"I found a little weie
Toward a parke, enclosed with a wall,
In compace rounde: and by a gate small,
Who so that would he frelie mighten gone
Into this parke, ywalled with grene stone."

shrubberies, though under each article we shall state what trees assimilate best in neighbourhood. The style of this kind of garden must depend so much on the extent, situation, and character of the ground, that it would be absurd to offer more than general remarks.

The plantation should be carefully made to suit the building it is to surround. As the villa and ornamented cottage form the largest portion at present of edifices that claim a pleasure-garden, we shall confine our observations to the grounds attached to these dwellings. As such houses are generally built on situations too flat to admit of much natural variety, the first study should be to find where and how we can break the level by throwing up elevations, so as to answer the double purpose of obscuring private walks, and screening other parts from the wind. But it requires considerable ingenuity to hinder these elevations from having the appearance of artificial ones, which would make them as ridiculous as a circular lake on a lawn. As the removal of earth is attended by the expense of labour only, this is one of the most advantageous manners of laying out money in the formation of a shrubbery, since five feet lowered in one part and raised above

will give a slope or bank about double that height. A considerable effect will thus be obtained; for in a flat country a small elevation gives a great command of prospect, and adds itself considerably to the beauty of a landscape, especially when planted with lofty growing trees, as larches and pines. An undulating appearance may be given to level ground, by judiciously planting the trees and shrubs.

The too general error of planting close to the dwelling-house should be avoided; for although such a plantation may have a pretty appearance in the infant state, a few years' growth will cause it to cast a gloom over the apartments, and keep off a free circulation of air. Besides, as plants give out noxious air in the evening, it should be more particularly guarded against in this moist atmosphere.

The training of trees to the walls of houses is also objectionable, as they cause damps, harbour insects, and collect leaves and other substances that become offensive by their putrefaction, whilst the view of the plants themselves cannot be enjoyed from the windows. However, all offices, out-houses, and unsightly buildings, may be covered with vines and ornamental climbers.

However small the plantation be, those abrupt terminations which mark the limits must not be permitted. The shrubbery should harmonize with the surrounding scenery, and appear to blend with it into one.

The plants which stand nearest the dwelling must be of the dwarf kind, and of the most beautiful sorts. The trees, also, should be selected so as to correspond with the style of building. The villa shows best when surrounded by light ornamental trees, such as the birch, the acacia, the sumach, the laburnum, and cypress; and a clump of poplars may sometimes be introduced, so as to break the line with good effect. The cottage may have more rustic trees; while to the castle belong the oak, the ash, and the pine. The mansion admits of all at their proper distance, and in suitable situations.

One of the most important things in planting is to attend particularly to the shades of green, especially where the view from the house or lawn catches the trees. Flowers, which Pliny calls the joys of the trees, continue but for a short period, in comparison to the duration of foliage; therefore, the picture should be formed by judiciously contrasting the greens. Even the effect of perspective

may be considerably increased by the proper arrangement of hues. Trees whose leaves are of a grey or bluish tint, when seen over or between shrubs of a yellow or bright green seem thrown into the distance. Trees with small and tremulous leaves should wave over or before those of broad or fixed foliage. The light and elegant acacia has a more beautiful effect when it's branches float over the firm and dark holly or bay-tree. In some situations the bare trunk of trees may be shown; in some, it should be concealed by evergreens and creepers. Vines, also, may be suffered to embrace it, and form natural festoons where the extent of ground will allow of wilderness scenery. In all situations, nature may be assisted, but should never be deformed by clipping; for ingenuity ought to be employed to disguise art, not to expose it.

The beauty of plants cannot be displayed when they are too much crowded, as they are then drawn up into unnatural shapes. Therefore, the oftener open spaces can be admitted, the more will the shrubs exhibit themselves to advantage, and the more cheerful will be the walk; for it becomes insipid and gloomy when confined for any distance. The winds also claim our attention. Care must be taken

so to arrange the position of the trees, that only those gales which are most congenial to the growth of particular plants should be allowed access to them.

The undulating appearance of a plantation will be considerably assisted by a gradual progression from the lowest shrub to the highest tree, and again, from the highest to the lowest. But, as some shrubs will not flourish under certain trees, their respective situations demand consideration. These shrubs may indeed exist under such unfavourable circumstances, but their unhealthy appearance will never be pleasing. Where the shade of any tree is too powerful for laurel or privet to thrive, ivy may be planted with advantage, if it be desirable to cover the ground with evergreen.

In proportion as the shrubbery or plantation recedes from the dwelling, it should become more rural in it's character, more especially if the house be in the cottage style. Here climbers, and such plants as require the support of others, are to be introduced. The most delightful groups in a pleasure-ground are generally those where nature, freeing herself from the shackles of art, depends only on her own assistance for support. Her beauty is chiefly to be seen

there where her various creations combine spontaneously, and without restraint.

The means by which these plants raise themselves up, so as to offer their flowers to the sun, are as various as they are curious, and they seldom blossom whilst trailing on the ground. The ivy and bignonia ascend by the help of little fibres, which fix themselves to the bark of trees or crevices in walls so tightly, as to render their disengagement a difficult thing to be accomplished without injury to the trunk or building they are attached to. The honey-suckle, like the hop, twines itself spirally around the trunk or branches of trees, and often clasps them so closely, as to make an impression on the hardest timber. Others, as the vine and passion-flower, rear themselves by means of corkscrew tendrils, which hold so fast, that the strongest winds seldom disunite them from their support. Some plants climb by means of a hook in their leaf-stalk, or have a kind of vegetable hand given them, by which they are assisted in mounting, as the pea and several others.

To return from this digression. — The sombre, gloomy walk of yew, cypress, or holly, should lead to the spot from which there is the most beautiful prospect, or to the gay

parterre where Flora has diffused her flowery beauties; as the contrast, particularly if sudden, adds greatly to the cheerfulness of the terminating view.

Bad taste is seldom more conspicuous than when we see trees or plants marshalled in regular order and at equal distances, like beaux and belles standing up for a quadrille or country dance. Where the situation will permit, four or six lilacs should be grouped in one place, and as many laburnums in another, so as to give effect in various parts by a mass of colour.

The guelder rose should appear as if escaping from the dark bosom of evergreens, and not a plant should be set in the ground without adding to the harmony of the whole. A shrubbery should be planted, as a court or stage dress is ornamented, for general effect, and not for particular and partial inspection. Boldness of design, which seems to be more the offspring of nature and chance than of art and study, should be attempted; but though boldness is what the planter should aspire to, all harshness, or too great abruptness, must be avoided, by a judicious mixture of plants whose colours will blend easily into one another.

The most beautiful shrubs should occupy

the most conspicuous and prominent places. For instance, a projecting part of the plantation should be reserved for the purple rhododendron, the flaming azalea, and other bog plants. Here, it must be observed, that unless proper soil be provided for these American plants, the cost of the shrubs will be lost, as they will soon decay when not placed in earth congenial to their nature. With these shrubs may be planted the hardy kinds of heath, as the same soil suits both species. With respect to evergreens, considerable judgment is required, in order to relieve their uniform appearance during winter. This may be done, by skilfully arranging different kinds, and those with variegated leaves, or such as retain their brilliant berries during the cold months.

However, a well planted shrubbery depends not so much for its beauty on the expense or rarity of the plants it contains, as on the selection of trees and shrubs which succeed each other in blossoming throughout the year, or whose various-coloured fruits grace them for the longest duration of time. We shall, therefore, not dwell upon those plants alone that are the ornaments of the summer season; but also point out some that will contribute to the gaiety of the morning and evening of the

year; so that the gloom may be banished at all times as much as possible from the grove, and nature's repose shortened between the plaintive good-night of autumn, and the cheerful good-morrow of spring.

The hazel and filbert are amongst the number of those trees that blossom the first; and although their crimson female flowers, which appear about the middle of January, make but little show, yet they should have a place in the shrubbery to display their catkins, that hang with such peculiar grace from the branches, at a season when scarcely any other plant or shrub offers a flower, excepting the rosemary.

> "Sweet-scented flower! who art wont to bloom
> On January's frost severe;
> And o'er the wintry desert drear
> To waft thy waste perfume!"

The furze bush, also, is one of the greatest enliveners of the shrubbery at this season, particularly when allowed to exhibit it's golden blossoms at the foot of some dark-foliaged evergreen. Among the trees of the back-ground, the wych elm, the alder, the willow, and the osier, flower in March. At the same period, the leafless branches of the almond are covered with blushing petals; whilst the sloe and plum are most con-

spicuously beautiful with snowy blossoms, which are enhanced by contrast, if made to rise from the midst of dwarf evergreens, and shaded by others of taller growth. In a later season, the fruit is no less acceptable, and scarcely less ornamental, when it

> " Hangs purpling, or displays an amber hue."

In the early months, also, the mezereon, the dwarf almond, and the pyrus japonica, give life to the fore-ground, when planted in little groups of three or four of each together.

At this season of the year, too, much of the beauty of the shrubbery depends on covering the banks, and feet of trees and shrubs, with considerable patches of the earliest flowers. In February, —

> " The snowdrop, winter's timid child,
> Awakes to life, bedew'd with tears,
> And flings around its fragrance mild;
> And where no rival flow'rets bloom
> Amidst the bare and chilling gloom,
> A beauteous gem appears."

This beautiful flower has for its contemporary the crocus, which is also very ornamental, when planted in such quantity as to cover a large space. When scattered singly, or arranged in formal bodies, its effect is

entirely lost; and, like a single candle in a cathedral, it seems but to cast an additional gloom over the scene. The banks should, therefore, be made to glow with the flaming petals of the yellow crocus, whilst other spots should shine with the silvery tints of the purple variety. Clumps of the winter hellebore, or aconite, should also be formed on a large scale, as their yellow cups, set, as it were, in green saucers, have a fine effect in February. The anemone hepatica is also as beautiful as hardy; and as there are varieties with red, blue, and white flowers, it is a plant that should be cultivated to a greater extent than is usual, as an embellishment to this season. The wild wood anemone, whose white and yellow flowers so enliven the earth at the same time, may be planted under the trees; and the primrose, that so sweetly "peeps beneath the thorn," when sprinkled abundantly between the shrubs and trees, gives an additional pleasure to the eye. The story of Proserpine may be recalled to our minds, by the view of gay plantations of early daffodils, that shake their golden heads to the winds of February.

Whilst occupied in this gay assortment, let us not forget that —

"There is a flower, a little flower,
With silver crest and golden eye,
That welcomes every changing hour,
And weathers every sky;

"'Tis Flora's page: in every place,
In every season, fresh and fair,
It opens with perennial grace,
And blossoms every where.

"On waste and woodland, rock and plain,
It's humble buds unheeded rise;
The rose has but a summer reign,
The *daisy* never dies."

MONTGOMERY.

Large patches of the common field daisy are very ornamental, when planted amongst shrubs; and the double crimson, white, and variegated kinds, deserve a conspicuous situation for their beauty, as well as for their early flowering.

As the lawn forms a principal feature in every pleasure-ground, this should also have an undulating surface, where the extent of ground will admit of it; and it must be a small space indeed that will not allow of a bank being thrown up. The form of this part should neither be too regular, nor of a studied irregularity. It should appear in different places to retire into the plantation, so as to give the idea of greater extent, especially when viewed from the windows of the villa.

Where the coach-road is carried through the lawn, (which, however, if possible, should be avoided,) it should be occasionally obscured by irregular clumps of shrubs, such as roses mixt with dwarf evergreens. The private walks must always be of breadth sufficient to admit three persons abreast, however small the grounds may be; for plants are sure to be injured where the walks are narrow. In extensive shrubberies, each walk should lead to some particular object; to the orchard, kitchen-garden, botanical borders, green-house, dairy, ice-house, mushroom-hut, aviary, poultry-yard, or stables. The intention of the plantation should seem to be, to conduct the walker in the most agreeable manner to each outlet and building of utility or pleasure.

Where a lawn is of sufficient extent for detached trees, the apple may be admitted with great effect, the blossom being amongst the most beautiful that open in spring. Such as produce a red fruit in autumn are more ornamental than most other trees.

To those who are so devoted to fashion, as not to venture to "treat their lungs with air" unmixed with smoke, till the crowds that swarmed at court have fixed their departure for rural scenes and a pure atmosphere, like

swallows and other birds of passage; to such, the gaiety of the autumnal shrubbery is of most importance. It now remains to say, how the last expiring glow of beauty may be thrown over the pleasure-ground.

In addition to the trees and shrubs, which will be noticed in this work as flowering the latest, aid should be borrowed from such autumnal flowers as continue gay until the approach of winter. The towering hollyhock, when half concealed and half seen through the shrubs and evergreens, is one of the boldest enliveners of the plantation at this season. This plant yields to none in beauty of form, majesty of carriage, or gaiety of colour; its hues proceed through all the tints of crimson, from the palest rose to the deepest purple; and from the purest white through all the shades of yellow, orange, and iron-brown. The tall sunflower should also figure in the back-ground; and the middle space may be allotted to the richly-varied dalea of the western world. The foreground is to be rendered splendid by large plots of the asters of China, the general tints of which, inclining to blue or purple, contrast well with the more gaudy colours of the African marigold, or the nasturtium of Peru, which latter should be suffered to climb the

holly or other trees, exhibiting its flaming petals to enliven the closing year.

In young plantations, where the evergreens have not spread sufficiently to cover the surface, clumps of wall-flowers are exceedingly ornamental, and their green, which is of the most agreeable tint, lasts through the winter. They often flower both late in the autumn and early in summer. The periwinkle is also an excellent running plant to cover the slopes and banks of the shrubbery, as its blue flowers are to be seen amidst its evergreen leaves, from March to the middle of November.

It must not be forgotten that England possesses advantages over every other part of the globe for ornamental gardening; first, in the fineness and beauty of its turf, which retains its verdure throughout the year without much labour or expense; whilst, on the continent, this is obtained only by the assistance or partially-concealed means of irrigation. The few lawns that are kept in any tolerably decent order abroad, are generally under the care of Scotch or English gardeners. The gravel of this country is also so superior to that of any other part of Europe for the formation of walks, that the royal gardens of Naples have their paths

covered with gravel, brought from the distance of Kensington. Perhaps, there is no one spot where the plants of the north and south thrive so well together as in the English shrubbery. Added to these advantages, the absence of ravenous beasts and venemous reptiles, are blessings that ought to make us

> "Vain of our beauteous isle, and justly vain,
> For freedom here, and health, and plenty reign."

The advantages to be derived from planting timber trees will be noticed in their proper place under their respective heads. Our observations here will therefore be confined to the recommending that great attention be paid to the nature of the soil before the plantation is formed; so that the young trees may have the benefit of a soil congenial to their future growth. As it is the skilful distribution of trees over the grounds, more than their peculiar character, which adds dignity to the landscape, so it forms one of the most important parts of the planter's study, to discover where to place the rising grove in such a situation as to improve the view. In a flat country, the first care should be to give an additional appearance of height to spots already elevated, by planting upon

them the tallest trees that the soil will suit. In parks and paddocks, the belt or long plantation, should generally be avoided, as well as that of the crescent shape, because they prevent a free circulation of air, and render the enclosed atmosphere unwholesome. Oblong, or circular plantations, on the contrary, afford the trees an opportunity of benefiting by the air; admitting, at the same time, a view of the landscapes which they partially intercept.

" The fountain's fall, the river's flow,
The woody vallies, warm and low;
The windy summit, wild and high,
Roughly rushing on the sky!
The pleasant seat, the ruin'd tower,
The naked rock, the shady bower,
The town and village, dome and farm;
Each give to each a double charm,
As pearls upon an Ethiop's arm. —

DYER.

The principal feature of the park should be grandeur, and the boldest points of the surrounding country should be made subservient to the scenery by that arrangement of the plantation which will give such prospects the greatest advantage. Yet should the park exhibit some signs of refinement, by the softening down of particular parts by means of varying tints, so as to give greater contrast to the natural scenery.

"Here groves arranged in various order rise,
And bend their quiv'ring summits in the skies.
The regal oak, high o'er the circling shade,
Exalts the hoary honours of his head.
The spreading ash a differing green displays,
And the smooth asp in soothing whispers plays,
The fir that blooms in spring's eternal prime,
The spiry poplar, and the stately lime."

SYLVA FLORIFERA.

ACACIA. — ROBINIA PSEUDACACIA.

Natural order, Papilionaceæ, or Leguminosæ.
A genus of the Diadelphia Decandria class.

"Light-leaved acacias, and the shady plain,
And spreading cedar, grace the woodland reign."

BARBAULD.

ALTHOUGH we are far from being amongst the number,

"Whose proud disgust and scorn
Detest those treasures which at home are born;
Who feel no joy, though spreading to the air
His pompous trees their verdant branches rear,
Unless from Afric's soil their rise they boast,
From India's deserts, or Columbia's coast.
* * * * * *
But if some foreign tree, of noble size,
With boughs majestic should adorn the skies,
Our forest natives with attention meet,
And hospitable care the stranger greet;
Pleas'd 'mongst themselves his future dwelling make,
Not for his scarceness, but his beauty's sake:
If haply profit too should join with grace,
To civic honours they admit his race."

DELILLE.

Of all the exotic trees with which we have adorned our native groves, this North American stands first. We have no tree that displays more elegant foliage than is formed by it's pinnated leaves, which appear so judiciously scattered over the branches that not one obscures it's fellow, and their feathery lightness is only surpassed by the pleasing emerald tints with which they are coloured; nor are it's bunches of pendant papilionaceous blossoms less acceptable for succeeding the more gaudy laburnum, and thus lengthening the charms of spring. The sweet perfume with which they scent the surrounding air only makes us regret their short duration; but to these succeed pods of so rich an umber brown, that autumn seems to peep through the veil of spring, and repay us for the loss of it's orange-flower odour; whilst the nightingale loves to confide her nest to this new inhabitant of our climate, whose long and strong thorns seem to insure her family a protection, and she descends to the lower branches to ravish our ears with her sweet melody.

> "Nor rural sights alone, but rural sounds
> Exhilarate the spirits, and restore
> The tone of languid nature." COWPER.

We cannot with indifference behold this tree which the uncivilized natives of America have

consecrated to the genius of chaste love. These proud children of the desert are not less susceptible of the pangs which Cupid occasions, than the more polished inhabitants of Europe; nor are they less delicate in expressing their sentiments, which, instead of flattering words, are told by a branch of acacia in blossom. It is natural to suppose that this seducing language is as well understood by the young savage of the forest as by the tutored coquette of the city.

The introduction of American plants into Europe made a change in the system of botany absolutely necessary; for that which had been arranged by Tournefort and others, was found impossible to be applied to the plants of the new world. This tree, when first introduced, was supposed to be a species of the acacia known in the ancient world, because its thorny branches and winged leaves bore resemblance to the Egyptian thorn, or binding bean-tree, which the Greeks called Ακακια, of ακαζω, to sharpen, from whence the Latin *acacia*. But by the system of Linnæus we discover that it cannot be ranged in the same class or order as the true acacia.

It is therefore commonly called the false acacia, while, in America, it is named the

locust-tree. * We have now collected thirteen different species of this tree, all of which bear the generic name of *Robinia.*

Europe owes this vegetable beauty to Monsieur Jean Robin, nurseryman to the king of France, and author of a "History of Plants," who first brought the seeds from Canada; and, in gratitude for the gift, botanists have given it the name of Robinia. † Soon after it's introduction into France, the English gardeners received seeds from Virginia, from which many trees were raised. Parkinson observes in his Theatre of Plants, which was published in 1640, that "it was grown of an exceeding height, by Mr. Tradescant;" and Evelyn recommends it to the nation in his Sylva, which was presented to the Royal Society in 1662. In this work, he says, "The acacia deserves a place among our avenue trees, adorning our walks with their exotic leaves and sweet flowers; very hardy against the pinching winter; but not so proof against it's blustering winds." This great man, who so eminently displayed his desire to embel-

* A name which most probably was given to it by some of the early missionaries, who would wish to create a belief that it was the same tree the fruit of which supported St. John when in the wilderness.

† Gerard received the nasturtium seed from M. J. Robin.

lish and enrich his native country, by plantations, adds, "I would encourage all imaginable industry in such as travel foreign countries, and especially gentlemen who have concerns in our American plantations, to promote the culture of such plants and trees, especially timber, as may yet add to those we find already agreeable to our climate."

These observations appear to have met with little attention, as the tree seems to have been rare in 1720, when Bradley notices it as growing in the court before Russel House, Bloomsbury, and in the Old Palace-yard, Westminster. In both of these situations their roots have given place to flag-stones, brick and mortar; their trunks to lamp-posts, and their waving branches to clouds of coal smoke. Mortimer says, "a great number of them were formerly planted in St. James's Park, and that in consequence of some of their branches being broken by the wind, they were all cut down."

This graceful tree is to be found in every well-planted shrubbery, yet it meets the eye less frequently than could be wished by the admirers of beautiful scenery, while in France it not only ornaments the gardens, and shades the public promenades, but it's winged leaves shine through their woods and forests, so as

to give an idea of it's being a native of the soil. There it adds utility to luxury, and profit to beauty, for the turner finds the wood both hard and firm, while the joiner uses it for durability, and the cabinet-maker for the beauty of it's yellow and brown veins; nor must we forget a singular quality in this tree, which is, that it burns well even on the day that it is felled; a property of no small importance to a country where wood continues to be the only fuel. This tree grows from fifty to seventy feet in height, and so rapidly when young, that it is not uncommon to see shoots of this tree six or eight feet long in one summer. In New England, we are told of a Robinia tree, of forty years old, that was in 1782 sixty feet high and four feet ten inches in girth, at three feet from the ground. This timber has been employed with success in Virginia for ship-building, and found to be far superior to American oak, elm, or ash, for that purpose; it is even said to be as durable as the best white oak, and esteemed preferable for axletrees of carriages, trenails for ships, &c. Most of the houses which were built at Boston in New England, on the first settling of the English, were constructed of this timber. The native Americans make their bows

of this wood, and point their arrows with one of it's thorns. It's tap-root, when cleared of the bark, has an agreeable perfume.

We are told, in Martin's edition of Miller, that Sir George Saville had, in 1807, planted many thousands of these trees at Rufford; and we feel confident that they will ultimately benefit his estate, notwithstanding the character given them by most English writers, that their branches are subject to be broken by the winds in summer. We have seen them so shattered in situations injudiciously chosen, while on the banks of the Thames, and in other sheltered spots, we have remarked them of more considerable age and magnitude than even in France.

The Acacia Robinia seems particularly adapted to ornament the modern villa; it's light and loose foliage, that pleasingly admits the light, seems to harmonize better with the trellis work of the viranda than any other flowering tree, while the grace of it's bend, and the gaiety of it's head, correspond with the nicety and cheerfulness of this style of building, which has of late years so greatly embellished our country. Nothing, perhaps, displays more conspicuously than this the liberty of the people, and the equity of the laws that protect the lone cottage, more securely than any ramparts

of moats could have protected our forefathers, who found no security but in their castles, or the walled towns, where their reliance was on their numbers. These towns were called *Villæ**, and from whence we have derived the name of villa for detached country dwellings; and as long as our liberties and laws remain unimpaired, so long will the acacia wave it's banners in security over our peaceable villas.

In placing this tree in the shrubbery or plantation, a sheltered situation should be chosen. It is a beautiful tree, either to look through, or to look down upon, and it is equally ornamental when it feathers to the ground, or carries it's plumage above evergreen shrubs, which it's shade injures less than that of other trees, and it is certainly less hurtful by it's drip than any tree we know of. This may be accounted for from a singularity in the nature of it's pinnated leaves: they fold over and join their upper surfaces in bad weather, leaving the tree, as it were, stripped of half it's foliage, while the rain is conducted by

* The Latin word *Civitas*, properly, is referred to the people and inhabitants who live under one, not only one law, but also under one and the selfsame magistrate and government. *Urbs*, *Villa*, and *Oppidum*, signify the place wherein those citizens live and assemble themselves. *Tate on the Antiquity, &c. of Cities, Boroughs, and Towns.* 1598.

the branches to the trunk, and from the trunk conveyed to the root. These winged leaves expand themselves again in fine weather to exhale oxygen gas, but at the approach of night they again close their leaves, as if to sleep, and are thought to give out carbonic acid from their under surface. An infant, who had observed this natural phenomenon from it's nursery window, observed, "it was not bedtime, for the acacia tree had not begun its prayers;"

> "Thus every object of creation,
> Can furnish hints to contemplation;
> And from the most minute and mean,
> A virtuous mind can morals glean."
>
> GAY.

The Robinia or, false acacia, is not delicate as to soil, for it will grow in earth of every kind, but prospers best in such as is light and sandy. The finest trees are those raised from seed, which should be sown in light earth, about the end of March, and in about six weeks the young plants will appear; they may be transplanted the following year, for all trees that have a tap-root it is advisable to transplant young. This tree is also propagated by suckers and cuttings; but these seldom prove so handsome as those raised from seed.

We do not learn that this tree has in any shape added to the catalogue of medicines. The *Acacia* of the shops was formerly made of the unripe pods of the true acacia tree; but of later years, the *Acacia Germanica*, which is made from unripe sloes, is preferred as an astringent medicine to the true acacia.

ROSE ACACIA. — ROBINIA HISPIDA.

This beautiful flowering shrub, which is deemed the emblem of elegance, did not cross the Atlantic until more than a century after Jean Robin had transplanted its relative into European soil. It is a native of Carolina, from whence it was brought in 1743, to embellish our shrubberies that have now

"The world's extremes within their branches join'd,
To either hemisphere convey thy mind;
Each plant you see presents a country new,
And every thought affords a voyage too;
Through them, thy thought, that wanders from its home,
To distant climates shall in safety roam."

DELILLE.

This offspring of the New World has been named rose acacia, from the colour, and not from the form of its flowers, which, like those of the common acacia, are formed like the blossoms of the pea. These botanists denominate *papilionacei* from *papilio*, a butterfly, whose shape they are thought to resemble.

In its native soil, the rose acacia grows to the height of twenty feet, but with us it seldom exceeds from six to ten feet; and as its wood is exceedingly brittle, if it has not some support, the branches are often broken or slipped off by the wind ere it reaches that height.

> "Few self-supported flow'rs endure the wind
> Uninjur'd, but expect th' upholding aid
> Of the smooth shaven prop, and, neatly tied,
> Are wedded thus, like beauty to old age,
> For int'rest sake, the living to the dead."
>
> COWPER.

This plant should always be found in the fore ground of the shrubbery, where its brilliant foliage, suspended on branches that are clothed with hairs of a reddish brown, cannot fail to excite our admiration; and although it seldom, if ever, matures its seed in this country, it is by no means shy of flowering, which it does in the early part of June; and often treats us with a second dis-

play of its drooping blossoms in August and September, as if conscious that it had not performed its part to nature, which has ordained, that plants should "bring forth seed after their kind." It is well known, that most plants will continue to give out blossoms, if their flowers are cut off before seed is formed; which seems like the instinct of fowls, that continue to lay eggs in the nest that is plundered.

The rose acacia is propagated by grafting it on the common acacia; therefore it thrives in any soil like the parent stock. Care should be taken to rub off all shoots that appear below the graft.

ARBOR VITÆ.—THUJA.

Natural order, Coniferæ. A genus of the Monœcia Monadelphia class.

THE generic name of this tree is a corruption from Θυα of *Theophrastus*, or thya *of Pliny*, which were derived from the verb *thyô*, I perfume; as the thya of the ancients gave out an aromatic smoke when it was burnt. It is called *arbor vitæ*, or tree of life, because it keeps in full leaf winter and summer; and not in allusion to the tree of life mentioned in the book of Genesis.

The royal garden of Fontainbleau had the honour of giving nourishment to the first arbor vitæ that was planted in Europe, and which was sent from Canada as a present to Francis the First. It does not appear to have been cultivated in England during that monarch's contemporary, as it is unnoticed by Turner, who dedicated his "Herbal" to Queen Elizabeth, in the first year of her reign; but Gerard tells us, in his "History of

Plants," which was published in 1597, that it was then growing very plentifully in his garden at Holborn, where it flowered about May, but it had not then ripened seed.

" The Thuja from China's fruitful lands,"

being of a brighter green and thicker of verdure, has nearly superseded the arbor vitæ of Canada in our plantations. The seeds of the Chinese arbor vitæ were first sent by some of the missionaries to Paris, where the quantities of these evergreens show how successfully they have been cultivated; but, we fear, these holy fathers have not been equally fortunate in propagating the seeds of Christianity in the land that gave them the tree of life.

Miller cultivated this species of the arbor vitæ, at Chelsea, in 1752; and it has now, from the hardiness of its nature, and the ease of its cultivation, spread itself, like the roses of China, over every part of our island. Surely this should induce us to naturalize, or, at all events, to make the trial of cultivating the tea-tree, which would, ere this, have covered our fields with its reviving leaves, had we bestowed half the attention on it that has been lavished on the asters and chrysanthemums of that country.

The arbor vitæ recommends itself to a place

in the shrubbery, not only by its perpetual greenness, but by the singularity of its flat spreading branches, and the minuteness of its leaves, that cover the young branches like the scales of fish. The flowers which appear in the spring, are produced from the side of the young branches, pretty near to the foot-stalk; the male flowers grow oblong catkins; and between these, the female flowers are collected in the form of cones. When the male flowers have shed their farina, they soon drop off; but the female flowers are succeeded by a cone of a knotted or cornered ovate shape, of a beautiful grey colour, which encloses seeds of an elliptic globular shape and of a pale hue.

The arbor vitæ is well adapted to screen private walks or low buildings, as it gives out branches near the ground; but it has a sombre appearance, unless associated with more cheerful foliage, or ornamented by some gay climbing plant, as the everlasting pea or the flaming nasturtium; but no flower contrasts so beautifully with this exotic evergreen as our native bindweed, whose white convolvuluses appear with peculiar grace when suspended from and enlivening the tree of life.

"Each give to each a double charm,
As pearls upon an Æthiop's arm."

There are many other aspiring plants that might be more safely permitted to

> " ——— catch the neighbouring shrub
> With clasping tendrils, and invert his branch,
> Else unadorn'd, with many a gay festoon
> And fragrant chaplet, recompensing well
> The strength they borrow with the grace they lend."
> COWPER.

Although the arbor vitæ will thrive in a shaded situation, it never produces seed but where it enjoys a free circulation of air. We have observed it on the elevated part of Père-la-Chaise, the romantic burial-ground of Paris, accompanying almost every tomb, completely covered with its singularly shaped but beautiful coloured fruit. We could not learn, whether the French planted it as a substitute for the mournful cypress, or because they consider its wood imperishable; or whether the name *arbre de vie* has been the inducement. In a few years more, this burial-ground will become a mountain filled with dead bodies, and a forest composed of the trees of life.

The celebrated professor Kalm, in his travels into North America, observes, that these trees were very plentiful in Canada; but not much farther south than 42° 10′ north latitude.

Mr. Bartram found a single tree in Virginia, near the Falls in the river James. Dr. Colden saw it in many places between New York and Albany, in about 41° 30′ north latitude. It grows naturally also in Siberia and the northern parts of China in nearly the same latitude; which is an additional instance to those we have remarked in the work on vegetables, that the natural plants of Europe, or a species of them, are generally to be found in the same latitudes of the New World, although their uses are frequently reversed, for the same plant which the husbandman labours to root out of the earth in one part of the globe, is sought after with avidity by the inhabitants of other countries. The nettle, which our peasants drive from their fields with blows and maledictions, is a crop which the Egyptians put up frequent and fervent prayers to be blessed with. Its seed affords them an oil, while the stem furnishes them with a thread, which they weave into excellent cloth. Thus, by investigation, we shall find, that there is not a plant,

"From the proud woods, whose heads the sky assail,
To the low violet that loves the dale,"

but what has certain relations to the necessities of man, and which does not serve him somewhere for clothing, for shelter, for pleasure, for medicine, or at least for fuel. The arbor vitæ, which we have borrowed from the extremity of the east and of the west, as a mere ornament to our pleasure-grounds, forms an article of utility and profit to the inhabitants of its native soil.

Kalm says, that it is reckoned the most durable wood in Canada, where the French call it *cedre blanc*, and the English white cedar. All the posts which are driven into the ground, and the palisades round the forts in Canada, are of this wood. The planks in the houses are made of it; and the thin narrow pieces of wood which form both the ribs and the bottom of the bark boats, commonly made use of there, are taken from this wood, because it is pliant enough for the purpose when fresh, and likewise, because it is very light. The Thuja wood is reckoned one of the best for the use of lime-kilns. Its branches are used all over Canada for besoms, which leave their peculiar scent in all the houses where they are used.

Our plantations have not been more beautified by exotic shrubs, than our schools of medicine have been enriched by Indian

receipts. The poor *uncolleged* negro, looking to Nature for a salve for every wound, made many discoveries that would have escaped the notice of the best lettered and most laborious son of Æsculapius, whose humane profession has taught him to be emulous in collecting foreign remedies to ease our native maladies,—of the botanist who collects foreign trees to embellish our native groves.

The arbor vitæ affords the Indian a remedy for the cough and the intermitting fever, and a medicine for rheumatic pains, which the commandant of Fort St. Frederic, M. de Lusignan, said he could never sufficiently praise, and which is simply the fresh leaves pounded in a mortar, and mixed with lard or other grease. This is boiled together till it becomes a salve, which is spread on linen, and applied to the part where the pain is, to which it is said to give certain relief in a short time.

The oil is recommended against the gout, being rubbed on the part; for it acts like fire, by stimulating and opening. The leaves bruised with honey dissolve tumors. *

The balsam and oil of arbor vitæ were

* Boerh. Hist. Dale.

very much used during the time of the plague in Dresden.

In the culture of these trees, we observe the finest are always raised from seed, which should be sown in pots of light earth about the month of March, and placed in a sunny situation, with a south-east aspect. The pots should be covered with moss so as to keep the earth humid.

The seed throws up little hills of earth, out of which the plant rises. For the two or three first winters, the pots should be covered with fern or other litter to secure the plants from frost, and by the fourth year they will be ready to plant in the shrubbery. *

These trees are more easily raised by layers or cuttings. The latter should be planted in September, upon a shady border, and in a loam soil. They should be chosen from the shoots of the same year, with a small joint of the former year's wood at the bottom of each. These should be planted three or four inches deep, in proportion to their length, treading the ground close to them, to prevent the admission of air. If the following spring should prove dry, there should be a little mulch laid over the surface of the ground to

* Le Bon Jardinier.

prevent its drying. These cuttings may be transplanted the next autumn. When they are propagated by layers, the young branches should be laid down in Autumn or March, which will put out roots by the following Autumn. *

* Miller.

ALDER.— ALNUS.

Natural order, Amentaceæ. A genus of the Monœcia Tetrandria class.

The classical reader will regard this tree with peculiar interest, as it will remind him of the lines in Virgil —

Tunc alnos primum fluvii sensêre cavatas.

" Then first on seas the hollow'd alder swam."
DRYDEN.

Nec non et torrentem undam levis innatat alnus,
Missa Pado. Geor. 2.

" And down the rapid Po light alders glide."

Ovid also tells us,

" Trees rudely hollow'd did the waves sustain,
Ere ships in triumph plough'd the wat'ry plain."

When the Author of Nature first clothed the earth with vegetables, every plant was adapted to its peculiar situation. There was nothing superfluous or idle, from the pine

that crowns the mountain, down to the violet which perfumes the grove. All were links of one harmonious chain:—

" Nature, enchanting Nature, in whose form
And lineaments divine, I trace a hand
That errs not." COWPER.

The alder and its relatives that love the stream, follow the current through every part of the globe; confining the rivers to their due bounds, and correcting the vitiated air of those situations by the peculiar qualities allotted to aquatic trees, which absorb the corrupted air more profusely than the natives of drier situations. We cannot reflect on this great wisdom of Providence in the scattering of plants, without exclaiming with Pope —

—— " How wondrous are thy ways!
How far above our knowledge and our praise!"

In this country, the alder is seldom suffered to attain its natural bulk, but in ancient times, when men were less numerous and trees more abundant, the dimensions of the alder were sufficient to form their boats, which we have already noticed from Virgil; and if we except Noah's ark, we shall find, that the first vessels we read of were made from these trees. Their contiguity to rivers, and the im-

perishable nature of the wood when kept in the water, were doubtlessly their recommendations to the early navigators. As men dispersed themselves over Europe, so did they convey the nautical use of this tree; and it is singular, how little the pronunciation of its name has changed with the migrations of man. The oldest English writer we have consulted calls it Alder, from which it was changed to Aller, and again to Alder; the Scots call it *Eller;* the French *Aulne;* the Germans *Eller, Erle, or Erlenbaum;* the Dutch *Els, Elzeboom;* the Danes *Ell, Elle, Elletræe;* the Swedes *Al, Ahl;* the Italians *Alno, Ontano;* the Spaniards *Aliso, Alamo;* the Portugueze *Alemo;* the Russians *Olcha;* the Polanders *Olsza;* and the Latins *Alnus and Alnos,* which is thought to be abridged from *alor amne:* — "I am nourished by the stream."

The alder does not possess those striking beauties, which attract our admiration to many other trees or shrubs; nor is it calculated to fill a space in those shrubberies whose narrow bounds are limited to the width of the dwelling, and whose length is terminated by the useful abode of the *horse and chaise.* The alder must terminate the largest shrubbery and most lengthened walk;

it should point out the river's approach, and direct the angler where to

" Throw nice judging the delusive fly."

Or it should mark the spot,

——— " Where with the pool
Is mix'd the trembling stream, or where it boils
Around the stone, or from the hollow'd bank
Reverted plays in undulating flow." THOMSON.

The highest pinnacle of the planter's perfection is to disguise art under the appearance of nature; which he can only do by attention to rural scenery, where we often meet with plants more happily grouped than in the studied views of the landscape gardener; yet we would say with Pomona's bard,

" Attend my lays; nor hence disdain to learn,
How Nature's gifts may be improved by art."

The round dark leaves of the alder may be associated with the long lanceolate and silver-tinted foliage of the *salix alba*, or white willow; and where the stream widens into a pool, the softer tints of the weeping willow may lend its aid, and " Po's tall poplar" may be employed to break the line.

The alder is what botanists denominate an androgynous plant, that is, producing both male and female flowers separately, but on

the same tree. The catkins, or male blossoms, are formed about the middle of September, where they hang uninjured by tempestuous rains, and unseduced by flattering sun-beams, till their betrothed female flowers appear in March, when

> ——— "The happy trees
> Commit their mutual wishes to the breeze.
> The palm invites the palm to Hymen's vows;
> Swung in the wind the poplars nod in love;
> Alders to alders bend their longing boughs;
> And, through the leaves, love whispers in the grove."

The flowers of the alder have no gay tint to recommend them, but the botanist and the curious observer of Nature find pleasure and instruction in every bud that opens.

The ancients were well acquainted with the imperishable property of this timber, when used for piles or other works that were covered with swampy earth or water. Vitruvius, the celebrated Roman architect, tells us in the work which he dedicated to Augustus, that the morasses about Ravenna were piled with these trees, in order to lay the foundations for buildings. Evelyn informs us, that the alder was used under that famous bridge the Rialto, which passes over the grand canal at Venice.

In Flanders and Holland, the alder tree is

greatly cultivated for the purpose of piles; for in those moist and boggy situations, buildings could not be safely erected without the aid of this tree that loves such a soil. When this wood has lain long in bogs, it becomes black as ebony. Joseph Bauhinas pretends, that in process of time it turns to stone. It is possible, that it may in some situations become petrified, where it meets with earth and water of a lapidescent quality.

The alder is one of the most proper and profitable trees that can be employed to keep up the embankments of rivers or canals; for whilst its roots and trunk are acting as a buttress against the power of the stream, they send out branches which may be cut for poles every fifth or sixth year, particularly if they be pruned of their superfluous shoots in the spring.

"As alders in the spring, their boles extend,
And heave so fiercely, that the bark they rend."

VIRGIL.

It is no small recommendation to these trees, that their branches do not injure the growth of grass, whilst their appearance adds more to the beauty of brook-lands than most other aquatic trees. The wood of the alder makes excellent charcoal; and it is valuable for pumps, pipes, sluices, and all works in-

tended to be constantly under water. It also serves for many useful purposes in domestic and rural economy, such as cart-wheels, troughs, handles of tools, &c.; whilst the good housewife knows its value in spinning-wheels, milk-vessels, bowls, trenchers, &c., and it supports her from the damp earth, in the shape of wooden heels, pattens, and clogs; nor is she unacquainted with a property in the leaves, with which she strews her chambers before sweeping, for when fresh they are covered with a glutinous liquor, that entangles fleas like birds in bird-lime. The whole tree is very astringent, and well-known to the country dyers. The bark is used by them, as well as by the tanner and leather-dresser, and the fisherman is not unacquainted with its utility for tanning his nets.

Those artisans, whose lives are spent in the Gobelins, to throw a semblance of nature into tapestry, borrow their shades for flesh colours from this tree, with the assistance of a little copperas. The young shoots dye yellow, but if cut in the spring, when full of sap, they dye a cinnamon colour. The fresh wood yields an umber tint; the catkins a tolerable good green; and the bark is employed as a basis for black, particularly in

dyeing cotton. The Laplanders chew the bark, and colour their leather garments red with their saliva. The bark and the fruit together yield a tolerably good ink. The roots and knots furnish the cabinet-maker with a beautiful veined wood.

Having already noticed from the architect of the ancients, that it was valuable to prop up houses, we will now see what use our ancestors made of it in propping up their constitutions. In *Lemery des Drogues*, we read that the bark and its fruit are cooling, and proper for inflammations of the throat, being used as a gargarism. Both Tragus and Dodonæus made use of the leaves of the alder as a cataplasm, to soften and resolve tumours. Dale tells us, that taken inwardly the leaves are excellent vulneraries. Most of the old medical writers sum up its various properties by stating, that the leaves put into the shoes of travellers, mitigate pain and lassitude. This last receipt we particularly recommend to those bulky subjects, who pass feverish days and restless nights, because

"They never pass their brick-wall bounds,
To range the fields, and treat their lungs with air."

It is well known that the finest alder trees are raised from seed; yet it is seldom, if ever,

practised in this country, because it is not the custom !

——— "Let not thy servile care
Too close a copy of our fathers bear;
Give new resources to the rustic art,
Try other schemes, and other views impart."

The best time for planting truncheons of alder is in February, or the beginning of March: they should be sharpened at the end, and the ground loosened with an iron crow before they are thrust into it, to prevent the bark being torn off. They must be planted at least two feet deep. When the alder is cultivated by layers, the operation should be performed in October, and in twelve months it will be ready to transplant. *

Aiton enumerates five different species of alder, most of which afford several varieties.

Monsieur Noisette has lately introduced a new species of this tree, which has very large leaves, and which he names *maritima macrophyla*.

* His Grace the Duke of Devonshire planted 19,612 alders, between the years 1816 and 1819.

ARBUTUS, OR, STRAWBERRY TREE.—ARBUTUS UNEDO.

Natural order, Bicornes. Ericeæ, Juss. *A genus of the Decandria Monogynia class.*

" *Pomoque onerata rubenti*
Arbutus." OVID.

" The arbutus laden with blushing fruit."

——— " At a season
When the cheerless empire of the sky
To Capricorn the Centaur archer yields,
And fierce Aquarius stains the inverted year;
Hung o'er the farthest verge of heaven, the sun
Scarce spreads thro' ether the dejected day;"

THIS beautiful shrub mingles its drooping alabaster flowers, and its pendent crimson berries, with its glossy dark foliage, thus offering all its beauties to enliven the evening of our year when most other trees have retired to rest, which must always ensure it a favourable situation in the shrubbery, where it will, as often as we see its unpalatable berries, remind us of the gratitude which we owe to the

horticulturist as well as the agriculturist, who has collected to one spot the fruits and grains that were scattered so widely over the globe, and who has by his art so much improved what he has collected, that we now reject as food the strawberry of the arbutus, which fed the earlier race of mankind.

The Greeks called this tree Κομαρος, and the fruit Μιμαικυλου; the Latins named the tree *arbutus*; but in Pliny's time, when Rome abounded in *wine and oil*, they called the fruit of this tree *unedo*, which was an abridgement of *unum edo*, meaning, you will eat but one. It has the name of strawberry-tree with us, because its berries so nearly resemble, in appearance, that delicious fruit. When it was first introduced from Ireland, it bore the name of Cain-apple. We conclude that this name was bestowed on it by superstition, whose terrible imagination alone was able to transform these beautiful berries into clots of Abel's blood.

We are not able to ascertain precisely at what period the arbutus was first cultivated in England. Dr. Turner says that he had not seen it in this country in 1568. Gerard also describes the tree in 1597, but he does not say that it was then planted in our gardens. Parkinson notices in 1640, that "it came to

us from Ireland." Evelyn observes, as late as the time of Charles the Second, that "the arbutus is too much neglected by us, making that a rarity which grows so common and naturally in Ireland." It is found growing spontaneously on rocky limestone situations, in the west of Ireland, particularly in the county of Kerry, near the lake of Killarney, where the peasants eat the fruit.

The arbutus is a native of the south of Europe, Greece, Palestine, and many other parts of Asia. It grows so plentifully about Magnesia, as to be the principal fuel used by the inhabitants. Belton says, it is common in Crete, and between Aleppo and Antioch. Wheeler observed it near Athens, and saw the fruit in the market at Smyrna. In Constantinople it is called *komaria*, which is nearly preserving the Greek name. A friend, who has resided there for some years past, informs me, that the fruit is commonly offered for sale in that capital, being threaded on a straw or grass, as our peasants' children string birds' eggs or wild strawberries.

Horace celebrates the shade of this tree —

"Nunc viridi membra sub arbuto
Stratus."

"Stretched under the green arbutus."

But Virgil describes its foliage as rather thin :

Muscosi fontes, et somnō mollior herba,
Et quæ vos rarâ viridis tegit arbutus umbrâ,
Solstitium pecori, defendite." Ecl. vii.

"Ye mossy fountains, and grass softer than sleep,
And the arbutus which covers you with its thin shade,
Keep off the solstitial heat from my cattle."

This prince of poets recommends the twigs as a winter food for goats :

—— "*jubeo frondentia capris*
Arbuta sufficere."

"Supply your goats with the leafy arbutus."

He also writes—

"*Arbuteæ crates, et mystica vannus Iacchi.*"

"Wattles of the strawberry tree, and the mystic van of Bacchus."

If we lay aside the works which the ancients have written on vegetation, to read nature itself, we cannot be less delighted; for there is not, says an elegant poet,

—— "a tree,
A plant, a leaf, a blossom, but contains
A folio volume. We may read, and read,
And read again, and still find something new,
Something to please, and something to instruct."

It is on this account that we would wish to see the study of botany more generally cultivated, which gives, as it were, an additional eye to those who walk either amongst the native

beauties of the field, or the exotic charms of the shrubbery; for, however elegant, however admirable, however diversified, the structure of vegetables may be, it does not strike the eye of those who are ignorant of their parts enough to interest them, because they do not even know where to look, or the use of what they look at. They have no conception of that assemblage and chain of relations and combinations which overwhelm with their wonders the mind of the observer who has studied this part of the creation, and who would find more beauties in the little inflated flower of the arbutus, than the indolent observer can perceive in the gay amaryllis of Buenos Ayres, or than the indifferent spectator will see in the matchless elegance of the passiflora, whose stars so splendidly illuminate the Brazilian forests. The very formation of the arbutus flowers strikes the botanist with admiration. He there learns that nothing is too minute to show the wisdom of the universal Creator; he observes how carefully nature has adapted these winter blossoms to the season of their flowering. These little vegetable bottles, which house so securely the parts of fructification from the storm, cover also the embryo fruit with their crystal-like bell, which admits the necessary light, whilst

its indented margin excludes more air than is requisite, and its pendent position throws off the dews and keeps the anthers dry, that they may discharge their impregnating dust even in the rainy season of November. But lest we should dwell too long on the anatomy of plants for those who make it their trade to dissect poor authors whilst living, we will return to the natural history of the arbutus, which takes a whole year to mature its fruit, so that the red branch, from which the ruby balls are suspended, is garnished with the snowy corollas of the succeeding crop, and thus—

——"with blossoms and with pendants shine,
And vernal honours to their autumn join;
Exceed their promise in the ripen'd store,
Yet in the rising blossom promise more."

POPE.

The arbutus tree succeeds best in a moist soil, for when planted in dry ground it seldom produces much fruit; it is therefore recommended to place it in warm situations; and if the earth is not naturally moist, there should be plenty of loam and rotten neat's dung laid about its roots, and in dry springs it should be plentifully watered.

Miller says, "these plants are tolerably hardy, and are seldom hurt, except in extreme

hard winters, which many times kill the young and tender branches, but rarely destroy the roots; therefore, however dead they may appear after a hard winter, yet I would advise the letting them remain till the succeeding summer has sufficiently demonstrated what are living and what are dead; for the winters of 1728-9, and 1739-40, gave us great reason to believe most of the trees of this kind were destroyed; and many people were so hasty as to dig up or cut down many of their trees; whereas all those who had patience to let them remain, found that scarce one in five hundred failed to come out again the next summer, and many of them made handsome plants that year."

The arbutus trees may be propagated by layers, but they are principally raised from seed; and as they require to be kept in pots for several years before they are ready for the plantation, we must not think the nurseryman's charge exorbitant for demanding a higher price for this plant than for many others of a more delicate nature.

Monsieur Pirolle tells us in his Bon Jardinier of 1822, that the arbutus trees which are raised from English seed are found to be of a hardier nature and better enabled to endure the winter than those raised from the seed of

other countries. Mr. Boutcher observes, that as the seeds ripen at different times, they must not be gathered all at once.

Those fruits which are ripe may easily be known, by their turning of a deep brownish tawny colour, which is generally in the month of December; they retain their growing quality a very short time, and therefore the berries should be mixed with dry sand to preserve them until the time of sowing, which is about the middle of March, when the seed should be rubbed out and sowed with the sand in pots of rich loose mould, which should be plunged into an old bed of tanner's bark, that has lost its heat, and covered with glasses to keep out the frost. Mr. Boutcher says, if the quantity you intend to raise be large, prepare a moderate hot-bed of tanner's bark; lay on six inches deep of the finest rich loose mould, sow the seeds, and cover them not more than one-sixth of an inch deep. In five or six weeks the plants will appear. The second spring he recommends them to be removed into penny pots, which should be plunged into the hot-bed till August, hardening them gradually, by exposing them to the open air in moist calm weather.

They may then be placed in a warm spot under a hedge, till October; after that time

attention must be paid to cover them with mats in bad weather. The following spring, the surface mould should be taken out, and the pots again filled with rich earth, and removed to a shady border till autumn. In dry weather they must be watered every second or third evening; and placed for the winter under a hedge or wall, where they may have sun. M. Pirolle recommends a south aspect.

Having thus stood two seasons in the pots, they are to be shaken out cautiously, and the mouldy or musty roots cut off. They must then be plunged in water and earth for an hour, and afterwards placed in twopenny pots, where they may continue two or three years. The first season they should be kept under shade and shelter, and watered in dry weather; and every spring the earth must be taken away from the surface of the pots, and replaced by some which is fresh and rich.

It is recommended not to prune this tree at removal; this should therefore be done a year before or after the operation.

We meet with a variety of this tree in our shrubberies with double blossoms, and another with red flowers.

Aiton enumerates five different species of the arbutus, and we met with some varieties

of them in the Parisian gardens, that we have not yet seen in our shrubberies.

We have turned over many ancient medical works without being able to meet with the virtues of this plant, excepting that *Amatus Lusitanus* informs us that there was formerly a water distilled from its leaves and flowers, "that is a sacred preservative and antidote against the plague and poisons." Galen, Dioscorides, Pliny, and several later writers, caution us not to eat too freely of the fruit; and however disposed we may be to neglect the first recommendation, we may safely answer for our attention to the second, leaving them as of old for the bird-catchers, to entice their prey in the winter season.

The leaves may be usefully employed by tanners in preparing their leather.

ASH.—FRAXINUS.

Natural order, Sepiariæ. Jasmineæ, Juss. A genus of the Polygamia Dioecia class.

"No tree in all the grove but has its charms,
Though each its hue peculiar;
* * * * * * *
And ash far stretching his umbrageous arm."
COWPER.

"The tow'ring ash is fairest in the woods." VIRGIL.

THIS tree was called by the Greeks μελία, and by some μελέα. The Latins, it is thought, named it *Fraxinus, quia facilè frangitur;* to express the fragile nature of the wood, as the boughs of it are easily broken. We are thought to have given the name of ash to this tree, because the bark of the trunk and branches is of the colour of wood-ashes, whilst some learned etymologists affirm that the word is derived from the Saxon *Æsc.*

It will be seen that we have been particularly fortunate in our antiquarian researches respecting this tree, so much celebrated by the ancients, as we have not only discovered the purposes to which it was converted by

mortals in old times, but we have, through them dived into the secrets of their gods to learn how the celestials regarded the properties of the ash; and through their fables we learn that Love first made his arrows of this wood; but afterwards he formed them only of cypress. Of what materials the sly urchin makes them at present, we must leave the sighing Damon's and Phyllis's to find out, and console ourselves that at the present time, when mankind and beauty are so encreased upon earth, that he does not make them of ashen poles, whose showers would darken the air, and render it unsafe to move about. We shall give authorities to show, that Mars seized the ashen poles to put into the hands of his disciples,

> "A lance of tough ground-ash the Trojan threw,
> Rough in the rind, and knotted as it grew."
>
> ÆNEIS, Book ix.

Virgil also tells us, that the spears of the Amazons were of this wood, and Homer celebrates the mighty ashen spear of Achilles. It has been surmised in modern times, that when the son of Venus resigned the ash to his father's use, it was on consideration that his grandfather Jupiter should, in consequence of his increased duties, allow him to disperse

his arrows either by gas or steam, or some celestial invention that has not yet been communicated to us mortals.

Tradition has handed down to us an allegory, which we relate, not only to show that the ash was esteemed a sacred tree, but because we recognize in this fable of the heathens, a disfigured, but very striking analogy to the tree of knowledge of good and evil, which proves that the heathens of the earliest days formed the same idea of an Omnipotent Being, and of good and evil, as is expressed by the Hebrew writers. This figurative fable, which is from the Edda, states, that the court of the Gods is held beneath a miraculous ash, whose branches cover the surface of the world, and whose summit touches the heavens; whilst its roots descend to the regions of Pluto. An eagle constantly reposes on the tree to observe every thing, whilst a squirrel ascends and descends incessantly to make report. Serpents are twined around the trunk; beneath one of its roots runs a limpid fountain, where wisdom is concealed: it communicates with a neighbouring stream, in which is found the knowledge of things to come.

This ingenious idea signifies that wisdom knows how to profit for the future by

the remembrance of what is useful in the past.

Three virgins are entrusted with the guardianship of this sacred tree, who always remain beneath the branches to refresh the ash with these salutary waters, which, on falling back on the earth, forms a dew which produces honey: happy effects of the invention of wisdom and science.

The Edda of Woden, holds the ash in so high a veneration, that man is described as being formed from it. Hesiod, who is supposed to have lived in Homer's time, deduces his brazen race of men from the ash; and in his Theogony has nymphs of the name Μελιάι.

That the ancient writers should so highly extol the ash is not extraordinary, as its inner bark often was the substance they wrote on before the invention of paper. Ancient writers state, that serpents have such an antipathy to the ash that they will not approach even within its morning or evening shadow; and Pliny tells us, (he says upon experience), that if a fire and a serpent be surrounded by ash boughs, the serpent will sooner run into the fire than into the boughs. He considers it as providential that the ash should blossom before the serpents appear, and that it should

not cast its leaves until these reptiles were gone.

Dioscorides the celebrated physician to Antony and Cleopatra, assures us, that the leaves of the ash applied to the wound, or the juice of them being mixed with wine and drunk, was a cure for the venomous bite of vipers.

We may still trace in this country the remains of a superstitious veneration towards this tree. In the south-east part of the kingdom, the country people split young ash trees, and make their distempered children pass through the chasm in hopes of a cure. They have also a superstitious custom of boring a hole in an ash, and fastening in a shrew mouse; a few strokes with a branch of this tree is then accounted a sovereign remedy against cramps and lameness in cattle, which are ignorantly supposed to proceed from this harmless animal.

Lightfoot says, that in many parts of the Highlands of Scotland, at the birth of a child, the nurse or midwife puts one end of a great stick of this tree into the fire, and while it is burning, receives into a spoon the sap or juice which oozes out at the other end, and administers this as the first spoonful of liquor to the new-born babe.

Nature, which provides the Greenland bear with its shaggy coat, and adapts the plumage of the feathered race to the height they are destined to soar in the air, has not with less wisdom clothed the vegetable creation with a foliage suitable to their natural destinations. Thus the ash, which was allotted to cover the barren soils of the most bleak and exposed situations, securely locks up its winged foliage and its loose flowers within its black buds, until Boreas has exhausted his March winds, and the early retiring of its sap in autumn, leaves the branches disengaged of their pinnated foliage, before the arrival of the equinoctial gales, thus leaving the trunk and branches too poor for the hurricane to vent its vengeance on. It is therefore well calculated for plantations on those exposed situations on the sea coast, where but few other trees will prosper; and the planting of those few in such situations is often too much neglected, as the dreariness of the downs in the vicinity of Brighton so conspicuously exemplifies, where, if a few patches of ground were ploughed up and sown with ash keys, holly berries, and furze seed, as happy a combination would spring up, as the greatest admirers of light and shade could wish. We make this observation on a September day on

a spot with such scenery before us, where the thinly-scattered but elegant pinnated leaves of the pale ash, and its light hanging bunches of keys, bend with every breeze over the immoveable holly, whose dark shining spiny foliage reflects the vermilion berries which crowd its spiral branches, whilst the approach to their trunks is defended by the chevaux de frize of the gaily yellow and sweetly perfumed furze.

It is with pleasure that we record, that many extensive plantations have within our age been formed in these kingdoms, which reflect the highest honour on the proprietors who thus liberally provide for their posterity, whilst they enjoy the prospect of the rising beauties that their munificence has lent to embellish their country.

Amongst these plantations we shall notice such as have been formed of ash.

In Suffolk, William Wollaston, Esq. planted twenty acres with this tree, at Great Finborough.

At Butsfield, Lanchester, Durham, Thomas White, Esq. planted 35 acres.

At Frindsbury, in Kent, Mr. David Day planted 16 acres with ash trees; and 150,800 on 32 additional acres.

At Byscot, near Farringdon, Berks, Edward

Lov. Loveden, Esq. planted 63,000 on 7 acres 9 perches.

At Belmont, Staffordshire, John Sneyd, Esq. planted 6,000 between the years 1784 and 1786.

At Ambleside, in Westmoreland, Dr. Richard Watson, Bishop of Llandaff, planted 20,000 on 11 acres, in the year 1788.

George Ross, Esq. planted 42,000 in Cromarty. The late Earl of Fife planted no less than 57,500, in the county of Murray,* and his Grace the Duke of Devonshire caused 86,514 to be planted on his estates between the years of 1816 and 1819.

Evelyn tells us, that in his time an ash-tree that had been raised from seed, forty years before, sold for thirty pounds; and he adds, "I have been credibly informed, that one person hath planted so much of this one sort of timber in his lifetime, as hath been valued worth fifty thousand pounds to be bought. These (says he) are pretty encouragements for a small and pleasant industry."

Mr. Boutcher has given an instance of the great profit of an ash plantation, in a small experiment, which he thus relates: "On half a rood of heavy meadow, chiefly barren red clay and moss, I planted ash trees six years

* Transact. Soc. Arts, &c.

old, and eight feet high, in rows, four feet asunder, and two feet distance in the row. After four years I cut them down within five or six inches of the ground. Having more than I wanted, in seven years I sold half for pollards and hoops for 40*s*. In six years I cut them again, and sold them for 50*s*. In six years after this I cut them again, and sold them at the same price. There remained now twenty-three, intended to stand for timber; but I was obliged to sell them at twenty-three years' growth for 7*s*. a tree. Thus would an acre of indifferent ground, properly situated for sale, yield in twenty-three years 115*l*. 10*s*., without any other expense than digging the ground for the first five or six years, and cutting the coppice." Observe, that no price is mentioned for the first cutting, which he used himself; and that he found he should have had at least one-third more for the price of the last cutting. He also found that he had planted too thick, and that he might have had more wood if the rows had been six feet asunder, and the sets three feet distant in the row.

"We have heard of a gentleman," says the author of Practical Economy, "whose lands were more extensive than fertile, whose practice it was to plant 1500 trees, on the birth

of every daughter, upon his waste grounds, which were, on an average, worth one pound each on her coming of age; thus enabling him to give her a fortune of 1000*l.*, without any extraordinary economy on his part; the regular thinning of the trees, at proper seasons, with barking, &c., paying off all the current expences, besides yielding him a small rent for the land."

This, however, was when 1000*l.* was thought a larger sum for a daughter's fortune than at present; but by stating some experiments of a later date, it will be sufficiently manifested how much planting of trees, even upon small portions of land, is connected with domestic economy, and which will be found in the history of the fir and the sycamore.

In Yorkshire, very recently, 5000 oaks were cut down, which yielded the sum of 100,000*l.*; and as recently, in Somersetshire, the timber of an estate of 2000 acres, was refused to an offer of 50,000*l.*

The number of canals which have lately been cut, and the excellence of the roads in most parts of the kingdom, must act as a great stimulus towards planting, as by the facility with which timber can now be conveyed from the most inland districts to the coast, the price will be more generally equalized.

In remote times, when this island was over-

run with woods, timber trees were principally valued for the food which they yielded to herds of swine; and thus, by the laws of Howel Dda, the price of an ash was rated at 4*d.*, while an oak or a beech was put at 120*d.*

> "No want of timber then was felt or fear'd
> In Albion's happy isle."

At the present time, ash timber meets with as ready a sale, and brings nearly as high a price as the best oak; and although we do not so frequently meet with large ash trees, as we do with large oaks and elms, yet it will be seen that the natural size of the tree is nearly the same. But as it grows so much more rapidly than the oak, so will it sooner decay than that tree, if not felled at maturity. It is observed, that when the woodpeckers are seen tapping these trees, they ought to be cut, as these birds never make holes in the ash, until it is on the decay.

Dr. Plot mentions an ash-tree of eight feet diameter, which was valued at thirty pounds. Mr. Marsham informs us of another in Benel Church Yard, near Dunbarton, in Scotland, which in 1768, measured sixteen feet nine inches in girth, at five feet from the ground. The Rev. Arthur Young, in his Irish tour, mentions some of seventy and eighty feet in

height, which were of only thirty years' growth. The trunk of one on the bank of the Avonmore was above fourteen feet round, and carried nearly the same dimensions for eighteen feet. An ash at Dunganstown was a few years back, twelve feet round, and quite clear of branches for thirty feet, where it measured ten feet round, and the arms extended in beautiful forms twenty-eight yards. At Tiny Park is another, the circumference of which, in the smallest part, somewhat exceeded nineteen feet, or six feet four inches diameter, in 1808. At Leixlip Castle is a row of eighteen ash trees, on a very bleak exposure, measuring from nine to twelve feet round, with fair stems of considerable height, and fine branching heads. At Donirey, near Clare, in the county of Galway, is an old ash, that at four feet from the ground measures forty-two feet in circumference, at six feet high thirty feet. The trunk has long been quite hollow, and a little school was kept in it. There were a few branches remaining in 1808, which were fresh and vigorous. Near Kennity Church, in the King's County, is an ash, the trunk of which is twenty-one feet ten inches round, and it is seventeen feet high before the branches break out. These are of enormous bulk. When a funeral of the lower class passes by, they lay

the corpse down for a few minutes, say a prayer, and then throw a stone to increase the heap, which has been accumulating round the root. Dr. Walker says he measured the trunk of a dead ash, in the church yard of Lochabar, in Scotland, which, at five feet from the surface of the ground, was fifty-eight feet in circumference.

The Romans used the ash-leaves for fodder, which were esteemed better for cattle than those of any other tree, the elm excepted; and they were also used for the same purpose in this country, before agriculture was so well understood, and our fields clothed with artificial grasses. In Queen Elizabeth's time, the inhabitants of Colton and Hawkshead fells remonstrated against the number of forges in the country, because they consumed all the loppings and croppings, which were the sole winter food for their cattle. In the north of Lancashire they still lop the ash to feed the cattle in autumn, when the grass is upon the decline; the cattle peeling off the bark. The Rev. Mr. Gilpin tells us, that, in forests, the keepers make the deer browze on summer evenings on the spray of ash, that they may not stray too far from the walk.

The ash is thought to be a very improper

tree for hedge rows and the borders of arable or pasture land, as its spreading roots exhaust the soil very much, and the drip of the tree is unfavourable to all other vegetation. In good dairy countries the ash is seldom suffered in the pastures, as it is thought to make the butter rank if the cows eat of its leaves, and which is said always to be the case with the butter which is made about Guildford and Godalming, and in some other parts of Surrey, where the ash trees abound in the fields. The correctness of this fact is doubtful, as there is no taste in the ash leaves to countenance the assertion; and we have frequently remarked, that a good housewife has made excellent butter, when her gayer neighbour, on the opposite side of the hedge, could not eat her own churning.

We have already remarked, that the ash tree in early days, served both the soldier and the scholar. It was also a principal material for forming the peaceable implements of husbandry, as it continues to be with us to this day, in the shape of ploughs, harrows, &c. The gardener recognizes it in his spade tree and other tool handles; the hop-planter knows its value for poles, the thatcher for spars, the builder for ladders, the cooper for hoops, the turner for his lathe, the shipwright

for pullies, the boatsman for oars, the fisherman for tanning his nets and drying his herrings. The wheelwright employs it usefully, and the coach-maker profitably, whilst the cabinet-maker palms it upon us as green ebony, and much have we in youth enjoyed the crack and fly of this sweet fuel on the farmer's hearth at harvest-home.

The ashes of this wood afford very good potash, and the bark is used in tanning calf-skins.

We have no objection to those who collect ash-leaves drinking the infusion themselves; but such as vend it as pure souchong, we wish the utmost rigour of the offended law to visit.

The ash-keys were formerly gathered in the green state, and pickled with salt and vinegar, and served to table for sauce.

The chemical writers who have noticed the ash, tell us that the leaves of this tree yield a great many acid liquors, a little urinous spirit, no concreted volatile salt, a great deal of oil and earth, and a moderate quantity of fixed salt, by which the natural salt of this plant seems to resemble that called by Angelus Sala, *oxysal diaphoreticum*; but in the ash it is joined with a great deal of sulphur and

earth: thus they say it is aperitive, diuretic, and sudorific.

Were we to transcribe all we have seen written on the medical virtues of this plant, it might naturally be asked how it happens that we do not meet our ancestors upon earth, who had in this tree a cure for every malady.

The Arabian, as well as the Greek and Roman physicians, highly extol the medicinal properties of the seed which the Latins named *lingua avis*, bird's tongue, which it resembles.

Dr. Taner, Robinson, and the famous Dr. Bowles, are amongst the later physicians who commend the good qualities of this little seed, and it was from these observations principally that our attention was directed to the formation of the seed; on dissecting the pod of which carefully with a pen-knife, the umbilical cord will be found running from the stalk to the upper end of the fruit, or seed, where it enters, to convey the nourishment to the germ, which (on opening from the reverse end,) will be found the future tree, so formed both in trunk and leaves, as not even to require the assistance of magnifiers to see the perfect plant. We are not aware of its being seen so perfectly in any other seed, therefore we would

direct the attention of the curious to this phenomenon of vegetable nature.

The common ash propagates itself plentifully by the seed, so that abundance of young trees may be found in the neighbourhood of ash-trees, provided cattle are not suffered to graze on the land.

In raising woods or considerable plantations of ash-trees, it is recommended to prepare the ground as for corn, and to sow a good quantity of ash keys with oats. If the crop of corn be taken off at the proper season on the following year, the ground will be covered with young trees. Ash seeds that have been kept over the year, as well as those which are deeply covered with earth, do not come up until the second year.

The variety of the common ash, with pendulous branches, called the weeping ash, is produced by engrafting, and it has at all times a heavy unnatural appearance. But those who admire trees of such singular, distorted shapes, should be careful to plant them where their branches may have full liberty to extend themselves each way, and the tree will then form an agreeable leafy marquee, for the warm season, but it is generally ill placed in the shrubbery, and often very ridiculously planted

in small cottage gardens, where it occupies ground that flowering shrubs should embellish without having room to display its reversed branches to any advantage.

There are varieties of the common ash with variegated leaves, and the *fraxinus simplicifolia*, various leaved ash, is also an indigenous species of this tree, to which we have added two that are natives of Italy, one of Aleppo, and four different species have been imported from North America.

The manna ash, *fraxinus rotundifolia*, is indigenous to Italy, and is found in great abundance in the lower parts of Calabria, where it grows spontaneously, and without culture, except that the woodmen cut down all the strong stems that grow above the thickness of a man's leg. The Duchess of Beaufort introduced this tree to England, where she cultivated it in 1697, but it seldom rises above fifteen or sixteen feet high in this country, and the shoots are shorter and closer together than in the common ash. The leaflets are also shorter, and have deeper serratures on their edges, and are of a lighter green. The flowers which are produced from the side of the branches are of a purple colour, and appear in April before the leaves come out. This tree should be planted in an eastern exposure,

in order to warm the juices in the morning, and to inspissate those which the heat has sweated out in the evening.

Before we relate the manner of gathering the manna from these ash-trees, we shall briefly treat on the nature of manna, and the cause of its formation. The first notice of this substance will be found in scripture, where the term manna seems to signify a miraculous kind of food, which fell from heaven, for the support of the Israelites, in their passage through the wilderness. Salmasius and others affirm, that the manna of the Israelites was in reality no other than a species of honey, or dew, condensed; and that the one and the other were the same with the wild honey wherewith St. John was fed in the wilderness; so that the miracle did not consist in the formation of any new substance in favour of the Israelites, but in the abundance and regular manner in which it was dispensed by Providence for the sustenance of so vast a multitude. Manna is not peculiar to the ash-tree alone, as it is only the extravasated juice of plants, which is discharged more or less by plants in general, according to their nature, and the temperature of the season, which regulates their transpiration. It was formerly thought to be a kind of *mel aerium*, or honey-

dew, which, falling in the night, gathers on certain trees; but these dews melt in the sun, whereas manna whitens and hardens in it.

The evaporation of leaves, says Decandolle, is one of the most obvious and important of their functions. No person can deny it who has noticed the drops of clear moisture on the points of leaves, even in hot-houses, where they cannot be affected by the dew; or who has traced the movement of a mist in a still evening, as it raises itself from fields planted with vegetables; or who has seen the rising of clouds from forests, and the ascent of vapoury columns from the same place before the formation of a storm. In fact, plants lose, by evaporation from their leaves, the greatest part of the moisture which they take in by their roots. The organs which are chiefly employed in evaporation are the slits, and also the hairs, which latter organs are therefore more abundant in young shoots, and in those parts whose evaporation is most active. The sudden and powerful operation of the sunbeams, after a passing drizzling rain, favours not unfrequently the perspiration of oxidized slime, and of sweet drops, which are known by the name of honey dew; the lime and sycamore usually have a great deal of it on their leaves in the heat of summer, and

which, if steeped in water, renders it sweet and purgative.

That the medicinal drug, known by us under the name of manna, is merely the juices of the various plants condensed by their meeting the air, is fully demonstrated by the manner in which it is obtained from the *fraxinus rotundifolia*. Mr. Swinburn tells us, that in Calabria, the gatherers of manna commence this business about the end of July, by making a horizontal gash, inclining upwards, in the bole of the tree. But as the liquor never oozes out the first day, another cut is given on the second, and then the woodman fixes the stalk of a maple leaf in the upper wound, and the end of the leaf in the lower one, so as to form a cup to receive the gum as it distils from each slash. The season continues about a month. The men have only three carlini, 1s. 1½d., for every rotolo; which quantity, containing thirty-three ounces and a third, is sold for twenty-four carlini and three quarters, or somewhat more than ten shillings; if it be in tubular pieces, the price rises one third. These pieces are called *Manna in cannoli*, and these regular tubes are produced, by applying to the incision thin straw, or small bits of shrubs, upon which the manna runs as it oozes out. Formerly the Syrian

manna was in the most repute, but now it gives way to the Calabrian.

Fuchsius observes, that the peasants of Mount Libanus eat manna ordinarily, as others do honey, whilst at Mexico they are said to have a manna, which they eat as we do cheese; thus we observe it differs in its qualities according to the climate and the vegetables from which it is distilled, and what in one country would afford a nutritive substance to its inhabitants, would prove a medicine when obtained from other plants in a different climate, and taken by a people of different habits.

Physicians are better agreed as to the virtues of this drug, which they originally learnt from the Arabians, than etymologists are to the origin of its name, as some state that it is either from the Hebrew word *manah*, a gift, to intimate its being a gift from heaven; or from *minnah*, which signifies to prepare, because the *mannah* came to them ready for eating, and needed no preparation but gathering; or as some suppose from the Egyptian word *man*, (what is it?) which seems the more probable, in regard the Scripture takes notice of the surprise they were under when they first saw this new food descend.

Salmasius, however, prefers another: according to him the Arabs and Chaldeans used the word *man*, to signify a kind of dew or honey that fell on trees, and was gathered in great abundance on Mount Libanus; on which footing the Israelites did not use the term *manna* out of surprise, but because they found this food fall with the dew, in the same manner as the honey-dew, so well known to them under the name of *man*.

M. Pirolle tells us, that in France the common ash is often attacked by the Spanish flies, which sometimes entirely destroy the foliage, and cause an odour that is both injurious and disagreeable; for when they become decomposed into a dust, it is difficult to pass the trees without inhaling these dangerous particles.

The foliage of the ash tree changes to a lemon colour in October.

"Like leaves on trees the race of man is found,
Now green in youth, now with'ring on the ground;
Another race the following spring supplies,
They fall successive, and successive rise:
So generations in their course decay,
So flourish these, when those are past away.

POPE's *Homer*.

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ASP, OR ASPEN-TREE.—POPULUS TREMULA.

Natural order, Amentaceæ. A genus of the Diœcia Octandria class.

——"Rustling turn the many-twinkling leaves
Of aspin tall."

THIS aboriginal of our forests moves its restless foliage also in most boggy grounds from Sweden to Italy. It is a branch of the poplar family, and from the incessant trembling of its leaves, was called by the Latins *Populus tremula.* The Greeks named it Κερκις, from κερκω the same as κρεκω, *strepitumdo*, to creak. The English name is from the German *Espe*, which is their general name for all poplars. The heart-shaped leaves of this tree adhere to the twigs by a long and slender stalk, the plane of which is at right angles to that of the leaf, and consequently allows them a much freer motion than other leaves that have their planes parallel with their stalks. This, with their cottony lining below, and their hairy

surface above, causes that perpetual motion and quivering, even when we cannot perceive by other means the least breath of air stirring in the atmosphere. This trepidation is attended of course with a rustling noise, on which account country people often call it Rattler. Ignorance, which has ever been more attached to superstition than to philosophical reasoning, accounts for this phenomenon, from a notion that our Saviour's cross was made of this tree, and that therefore the leaves can never rest.

The plaintive lines of a fair and unfortunate poetess almost give the idea of her joining in the superstition of the Highlanders:

"Why tremble so, broad aspen-tree?
Why shake thy leaves, ne'er ceasing?
At rest thou never seem'st to be!
For when the air is still and clear,
Or when the nipping gale, increasing,
Shakes from thy boughs soft twilight's tear,
Thou tremblest still, broad aspen-tree,
And never tranquil seem'st to be.

"Beneath thy shade, at sultry noon,
I oft have sat, deep musing;
And oft have watch'd the rising moon
Above the dusky summit shine,
A placid light diffusing!
Though all around a calm divine
The *rest* of *nature* seem'd to be,
Still didst thou tremble, aspen-tree!"

The aspen-tree may be planted so as to ornament large grounds, but its effect is lost when crowded. When it meets the eye as a fore-ground to plantations of firs, it has both a pleasing and singular appearance, as its foliage changes with the wind from a silver grey to a bright green; for when the sight goes with the wind, it catches only the under side of the leaves, which are covered with a pale floss; but when it meets the current of air, the tree presents the upper surface of its foliage to the view; thus its tints are as changeable as its nature is tremulous.

Like its relative poplar, this tree is of speedy growth, and will thrive in any situation or soil, but worst in clay. It is accused of impoverishing the land, and its leaves are charged with destroying the grass, whilst its numerous roots, which spread near the surface, will not, it is said, permit any thing else to grow. The wood is extremely light, white, soft and smooth, but durable in the air. It is used for making milk-pails, wooden-shoes, clogs and pattens, &c. The bark is the favourite food of beavers, whilst the leaves and the stalks form the nourishment and birth-place of the *tipula juniperina*, a species of long-legged fly.

The aspen-tree will not bear lopping, like other species of the poplar. Evelyn quaintly observes, "It thrusts down a more searching foot, and takes it ill to have its head cut off."

Gerard, who composed his History of Plants during the reign of a virgin queen, must, we conclude, have possessed but little gallantry, unless he was troubled in his domestic circle by a too animated female tongue; for in his account of the aspen-tree he says, "It may also be called *Tremble*, after the French name, considering it is the matter whereof women's toongs were made, which seldome cease wagging." May not the ladies retort with La Fontaine—

——*Je sais même sur ce fait*
Bon nombre d'hommes qui sont femmes ?

BAY.—LAURUS NOBILIS.

Natural order, Holoraceæ; Lauri, Juss. *A genus of the Enneandria Monogynia class.*

This plant, the laurel of antiquity, is a native of classical ground. The Greeks called it Δάφνη *Daphne,* from διαφάνη on account of the crackling noise it makes while burning. Fable informs us, that our sweet bay owes both its origin and its name to Daphne, the chaste daughter of Peneus, deity of a river so named in Thessaly, whose banks are lined with these trees. The mythologists tell us, that the fair Daphne, flying from the embrace of Phœbus, who had near overtaken her,

—— "Cast a mournful look
Upon the streams of her paternal brook;
'Oh, help,' she cried, 'in this extremest need!
If water gods are deities indeed:
Gape earth, and this unhappy wretch intomb;
Or change my form, whence all my sorrows come.'
Scarce had she finish'd, when her feet she found
Benumb'd with cold, and fasten'd to the ground:
A filmy rind about her body grows;
Her hair to leaves, her arms extend to boughs:
The nymph is all into a laurel gone;
The smoothness of her skin remains alone."

The disappointed Apollo then claimed the tree as sacred to himself.

—— "Because thou canst not be
My mistress, I espouse thee for my tree:
Be thou the prize of honour and renown;
The deathless poet, and the poem crown.
Thou shalt the Roman festivals adorn,
And, after poets, be by victors worn." OVID.

The Latins called it *Laurus*, from *lavo*, on account of its quality in purging the blood; or, as some suppose, from *laudis*, praise, and from whence the ancients called it *Laudea*, but in later times the *d* was changed for *r*, making it *Laurus* and *Laurea*.

This favourite tree of Apollo's gave the name to a capital in ancient times, which is now called Paterno.

"Deep in the palace, of long growth, there stood
A laurel's trunk, a venerable wood,
Where rites divine were paid; whose holy hair
Was cut and trimm'd with superstitious care.
This plant Latinus, when his town he wall'd,
Then found, and from the tree Laurentum called:
And last, in honour of his new abode,
He vow'd the laurel to the laurel's god." VIRGIL.

The ancients believed that the *laurus* was a protection from lightning; Ovid makes Phœbus give it this virtue:

"Secure from thunder, and unharm'd by Jove,
Unfading as th' immortal pow'rs above:
And as the locks of Phœbus are unshorn,
So shall perpetual green thy boughs adorn."

It is related that Tiberius, who had a great dread of lightning when accompanied with thunder, would cover his head with boughs of this tree, and creep under his bed to avoid it. The belief that the bay-tree had the property of repelling lightning lasted a long time after the fall of paganism: Madame de Genlis tells us, that it was on this superstition that the device of the Count de Dunois was founded, which represented this tree beneath a tempestuous sky, and for motto—

Terræ solum natale tuetur.

"I defend the earth which bears me."

To this day it is customary for the peasants in the Pyrenees to cover themselves with branches of the bay tree, as a security from the lightning, and we have known it planted by our own villagers as a protection from fire. In this happy effect of ignorance, we trace the expiring spark of Roman superstition.

The aromatic emissions of these trees were in such reputation for clearing the air, and resisting contagion, that during a pestilence the physicians of the Emperor Claudius advised his court to be removed to Laurentium, so celebrated for bay-trees; and it has been thought that this supposed virtue of the *laurus* was an inducement for Pliny the younger to

reside so much at his favourite villa, near Laurentium.

Theophrastus tells us, that superstitious people would keep a bay-leaf in their mouths all day, to preserve themselves from any misfortune or pollution. The ancients also attributed to the *laurus* the property of preserving the corn from mildew.

Amongst the other wonders related of the bay, its decay was said to be ominous of some fatal accident. Suetonius (in Galba) affirms, that all the bay-trees withered to the very roots in the winter, though it was very mild, which preceded the death of Nero. This accident could only have been deemed fatal to the monster and his creatures!

Evelyn tells us, that in 1629, preceding a great pestilence at Padua, almost all the bay-trees about that famous university grew sick and perished; upon which it was said that Apollo and the muses were about to desert that city.

We cannot pass this tree in the shrubbery without having our recollection roused by the remembrance of some anecdote connected with ancient history. When under the shade of the bay-tree we almost fancy ourselves in the first temple which was raised to Apollo at Delphi; for this temple was formed entirely of the branches of this tree, which were

brought from the valley of Tempe, and were so curiously interwoven as to form an elevated roof. Whilst the temple of the god of poetry and music offered nothing but the symbol of glory in its construction it was sacred; but when its walls were composed of marble, and its coffers were filled with those metals which possess the hateful quality of transforming virtuous men into dishonest ones, and bad men into monsters, then the god was worshipped with more ceremony, the oracle despised, and the sacred urns plundered. The people of Phocis, the very inhabitants of Mount Parnassus, committed sacrilege upon their own god, carrying away at one time, from the temple of Apollo, ten thousand talents.

Nero carried away no less than five hundred statues of brass, partly of the gods, and partly of the most illustrious heroes, from this repository of superstitious opulence; whilst, in later ages, Constantine the great removed its most splendid ornaments to his new capital. The deeds of these sceptred robbers are recorded to this day in every known language, whilst their plunder is mouldered to dust!

The oracles were always delivered by a priestess called Pythia, and were generally

given in verse, until it was sarcastically observed, that the god and patron of poetry was one of the worst poets in the world, which induced the priestess to deliver her answers in prose. It was customary for all that consulted the oracle to make rich presents to the god of Delphi; and no monarch distinguished himself more by his donations than Crœsus.

There were also diviners called *Daphnephagi*, laurel-eaters, because they chewed laurel leaves, pretending thereby to be inspired by Apollo. The bay-tree was also employed in other kinds of divination and religious cheats, such as throwing them into the fire; when to draw a good augury the leaves must crackle. They put them also beneath their pillows at night, to obtain prophetic dreams; and they were planted around their dwellings to bring good luck.

The origin of the Daphnephoria, a festival in honour of Apollo, which was held every ninth year, will show how sacredly the bay-tree was considered to belong to that god. An oracle advised the Ætolians, who inhabited Arne and the adjacent country, to leave their own country and go in quest of a settlement; they therefore invaded the Theban territories, which at that time were pillaged by an army of Pelasgians.

When the celebration of Apollo's festivals arrived, both nations, who religiously observed them, laid aside all hostilities, and, according to custom, cut down branches of the bay-tree from Mount Helicon, and in the neighbourhood of the river Melas, and walked in procession in honour of the divinity. The day that this solemnity was observed, Polemates, the general of the Bœotian army, saw a youth in a dream that presented him with a complete suit of armour, and commanded the Bœotians to offer solemn prayers to Apollo, and walk in procession, with laurel-boughs in their hands, every ninth year. Three days after this dream the Bœotian general made a sally, and cut off the greatest part of the besiegers, who were compelled by this blow to relinquish their enterprize; Polemates, from this, instituted a novennial festival to the god who seemed to be the patron of the Bœotians.

By the manner in which this festival was kept, we may trace their religion from the eastern nations, where the sun was the primary object of adoration; for in this festival it was usual to adorn an olive-bough with garlands of the *laurus* and other flowers, and place on the top a brazen globe, on which were suspended smaller ones. In the middle were placed a number of crowns, and a globe of

inferior size, and the bottom was adorned with a saffron-coloured garment. The globe on the top represented the sun or Apollo, that in the middle was an emblem of the moon, and the others of the stars. The crowns, which were 365 in number, represented the sun's annual revolution. This allegorical bough was carried to the temple in solemn procession, by a beautiful youth of illustrious family, who then officiated as priest of Apollo.

The despatches and letters which were sent to the senate at Rome, from the victorious generals, were made up and ornamented with leaves of the *Laurus;* and in their triumphs every common soldier carried a sprig of bay in his hand, both to denote victory, and as of virtue to purge them from blood and slaughter.

Linnæus surnamed this tree *Nobilis,* from the exalted uses to which it has been applied; for it is the brilliant symbol of all kinds of triumph. It crowns conquerors, and is also the most glorious attribute of clemency. This divine virtue, personified, is represented in the ancient medals under the figure of a female holding a spear, and a branch of the bay-tree.

This tree, whose constant deep-green foliage varies so decidedly the tints in our plantations, causes thoughts and reflections as

various in our walks; for we do not unite the idea of peace with the olive-branch, more strongly than that of glory with the bay-tree. Henry the IVth of France, before his achievements at the beginning of the civil wars, demanded a new year's gift of Aubigné, who sent him an emblematic nosegay, composed of olive, bay, and of cypress, with a sonnet, the explanation of which was, that he must make a good peace, vanquish, or die.

It was an ancient custom to place wreaths of *laurus* with the berries on the heads of those who had distinguished themselves in some particular branch of polite acquirement; hence our expression poet *laureate*. The poet laureate ("now broach ye a pipe of Malvoisie,") of modern times tunes his reed so sweetly, that Apollo cannot reward him without the aid of Bacchus, who annually furnishes the happy bard with a butt of malmsey. Some penetrating critics have, since this change, declared that they discovered the wine in the walk of the laureate's poems.

Students who have taken their degrees at the universities are called bachelor, from the French *Bachelier*, which is derived from the Latin *Baccalaureus* (laurel and berries). These scholars were not allowed to marry, lest the duties of husband and father should

take them from their literary pursuits; and in time all single men were called bachelors.

But it is not the bachelors alone who have sighed for the laurus crown; as the wish of her who excited so much interest in the Perditta of Shakspeare will prove:

"Heaven knows I never would repine,
Though Fortune's fiercest frowns were mine;
If fate would grant that o'er my tomb
One little laurel-branch might bloom;
And mem'ry sometimes wander near
To bid it live—and drop a tear!"

It is beyond a doubt, says Dr. Hunter, that the *bay-tree*, and not the *laurel*, is the *laurus* of the ancients. The laurel was not known in Europe till the latter end of the sixteenth century, which will be shown in the history of that shrub. Besides, *our* laurel has not the properties ascribed by the ancients to *their* laurus. Virgil says it has a fine smell, which the laurel has not.

Et vos, O Lauri, carpam, et te proxime, Myrte,
Sic positæ, quoniam suaves miscetis odores.

Ecl. ii.

And in the sixth Æneid,—

Odoratum Lauri nemus.

We cannot ascertain at what exact period the bay-tree was first cultivated in this country;

but in all probability it was planted by the Romans, and fell with their villas. Chaucer, who wrote in the time of Edward the Third, says,

> "And tho that baren bowes, in hir hond,
> Of the precious Laurer, so notable,
> Be such as were (I woll ye understond)
> Most noble Knightes of the Round Table,
> And eke the Donesperses honourable;
> Which they bere in the sign of victory,
> As witness of hir dedes, mightily."

Turner, our oldest writer on plants, says, in 1564, "The bay tre in England is no great tre, but it thryueth there many partes better and is lustier than in Germany." And we find that during the reign of Elizabeth, it was common to strew the floors of distinguished persons in England with bay-leaves. Gerard observes, in 1596, that he had not seen the bay-tree in "Denmarke, Swenia, Poland, Liuonia, or Russia; or in any of those colde countries where I haue trauelled." And we conclude that it was rare in this country, even so late as the beginning of the eighteenth century, as Bradley says, in 1716, "they should be put in pots or cases, and housed in the winter, that their beauty may be preserved." He states that "he has seen pyramids, and headed plants of bays introduced into *parterre*

work, but he cannot advise the doing it, lest they should be injured by hard weather." He adds, "the finest bay-trees he has ever seen, either abroad or in England, are now in the Royal Gardens at Kensington, which are of very great value." From Mons. Liger, who wrote in 1703, we learn that these trees were then nursed with great care in the Royal Gardens of France; for he tells us that they were planted in boxes and pots, and cut into pyramids, or globes, to ornament the gardens at Versailles. The bay-tree seems rare in the vicinity of Paris*, at the present time, as we did not meet with it in any garden excepting the *Jardin des Plantes*, either in the summer of 1821 or 1822; and at *Père la Chaise* we only found it at the tomb of Delille, where, should it thrive, our successors will be told we may suppose, that it sprang from his body, as they still tell us in the vicinity of Naples, where, at the tomb of Virgil, they show you a bay-tree that they pretend was produced by the ashes of this great poet, and which is as readily believed as the dream of Maia his mother, who, we are told, dreamt that she was delivered of a branch of *laurus*, and that

* Bay-leaves are in considerable demand in Paris, for domestic uses, and for which purpose they are sent from the south of France in great quantities.

having planted it in the earth, there instantly sprang up a majestic tree, covered with fruit and flowers of every kind. We presume that the Æneid was read before this dream was told.

Miraculous days having passed away before the formation of our shrubbery commenced, let us attend to nature, and see where she advises us to plant this *Daphne* of the Greeks, and *Laurus* of the Romans, which furnished the Delphic wreath, and graced the head of triumphant heroes; guarded the gate of the Cæsars, and formed the Pontifex maximus to be placed on the houses of the sick. Observations instruct us to place this tree in situations where it is sheltered from north and north-east winds, which affect its beauty, and often its growth. We notice that it thrives under the very wings of larger trees, where it is difficult to make other shrubs prosper, and which is of importance in our plantations. A warm, dry, sandy, or gravelly soil is recommended for this tree; but we have noticed that it thrives well in a rich loam; for the handsomest bay-tree that we have seen, was planted in such soil, by a lady at Tarring, in Sussex, on her wedding-day; which had sent up its spiral top higher than her dwelling, in less than twenty years; affording ample shade to her playful and numerous offspring.

Its lower branches were the roosting-place of her poultry, and the higher boughs protected the nests of various birds, who treated her with Apollo's strains, for having planted Apollo's tree; which, of itself, refreshes her family by the salubrious perfume it gives to the air of her little garden—to say nothing of the aromatic taste its leaves give to her baked herrings; a dish not to be despised at a country déjeuné, as many a sea-side resident will agree, who knows not, or cares not for the happy allusions it affords to the classical reader. They prefer its spicy taste to the finest passages of the ancient poets. But we would wish to inspire our marine friends with a relish for plants as well as for fish: at any rate, to preserve the few trees that nature spontaneously scatters on the coast. For, some years back, we saw a beautiful farm, about a mile from Worthing, swept of every shrub and tree by the farmer, who had purchased it by his profits during the war. We almost regretted at the time that he had not resided in some despotic government, where, at every change of the moon, he would have been scourged with the leafless branches, until his hedge-rows had recovered their wonted foliage. But he resided in a land of liberty, and possessed a right either to please himself or his

wife, by exposing his house to every gaze, his fields to every wind. But in charity we will presume that this rural devastation was committed, not through a want of taste, but that it was a sacrifice to the will of his spouse, and that he acted upon the principle of the Duke of Antin, who gratified Louis XIV. by a similar demolition. This monarch complained of a wood that injured the view from his apartment at Fontainbleau, upon which the Duke of Antin caused all the trees to be sawn (secretly) near the root, and cords fixed to each tree. More than 1200 men remained in readiness to fell them at the least signal, when the King, walking near the spot, repeated that this wood displeased him, which was no sooner said, than the obsequious Duke gave a whistle, and in an instant the whole forest was seen to fall. The Duchess of Burgundy, who witnessed this feat, exclaimed, laughing, "Ah! bon Dieu, si le roi avoit désiré nos têtes, Monsieur d'Antin les feroit tomber de même."

We have not learnt whether this forest sprang up again; but we are told by Mortimer, that bay-trees whose branches are killed by the weather, or other accident, if cut down to the ground, will send up strong shoots, which we know by experience to be correct; therefore we should caution gardeners against grubbing

up the roots too hastily. This tree should never have a branch taken from it but in the spring. The directions for raising these trees from seed, are given in the same manner by all writers on the subject, from Pliny down to Miller. It is to gather the fruit when quite ripe, which is not before January or February. The berries are then to be preserved in dry sand, until the middle of March, when they may be sown in a shady border of rich loose undunged earth. The berries should be dropped in rows, as French beans are planted, and covered with fine rich mould about an inch thick. The young plants will require frequent, but moderate watering, for the two first years. The French nurserymen raise them under glass, or in an orangery.

The bay-tree will grow by cuttings, but these should be planted in a moderate hot bed, and kept moist, and covered from the heat of the sun during summer, and from the frost in winter. April is the proper time to plant cuttings, but layers may be laid down either in March or August; which, by the second spring, will make good plants.

The variegated bay is increased by budding it on the common sort. Neither the broad nor the narrow leaved varieties are so hardy as the common bay.

The leaves and berries of the bay-tree have an aromatic astringent taste, and a fragrant smell. They are accounted stomachic, carminative, and uterine; but are not much used in medicine at the present day, although old writers are very voluminous in describing their virtues. Some tell us that the leaves were formerly eaten to prevent intoxication, whilst others ate them to produce oracles; from whence the bay is sometimes called the "Prophetic Tree."

Venturi præscia Laurus.

CLAUDIAN.

BEECH TREE.—See *Pomarium Britannicum.*

BIRCH.—BETULA.

Natural order, Amentaceæ. A genus of the Monœcia Tetrandria class.

"And all in sight doth rise a birchen tree,
Which learning near her little dome did stow;
Whilom a twig of small regard to see,
Though now so wide its waving branches flow,
And work the simple vassals mickle woe;
For not a wind might curl the leaves that blew,
And as they look'd, they found their horror grew,
And shaped it into rods, and tingled at the view."*

SHENSTONE.

In the early days of Rome, the lictors had their fasces made of the branches of this tree, and which they carried before the magistrates to clear the way, beating such as caused obstruction: from hence the most ingenious etymologist we have consulted derives the generic name of the birch. "The Latins," says Coles,

* Shenstone is not the only poet who has celebrated the mystic power of this dread tree. It is introduced thus in the *Dunciad*:—

"When lo! a spectre rose, whose index hand
Held forth the virtue of the dreadful wand;
His beavered brow a birchen garland wears,
Dropping with infant's blood, and mother's tears.

"call it *Betula*, and sometimes *Betulla*, from the old verb *batuo*, signifying to beat; because it was and is often used for that purpose."

The English word birch seems derived from the German *Birke*, or the Dutch *Berk*; all the European languages are similar in the pronunciation of the name of this tree. In summing up the virtues of this tree, Coles says, in his Paradise of Plants, "The civill uses whereunto the birch-tree serveth are many; as, for the punishment of children, both at home and at school; for it hath an admirable influence upon them, to quiet them when they are out of order; and therefore some call it Make-peace."

However terrible the birchen twigs may be to the idle boy, the man of taste must be pleased with the appearance its slender base and inverted pyramidical top present, and which is heightened by the soft tints of its foliage, that plays with every breath of air

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O'er every vein a shuddering horror runs,
Eton and Winton shake through all their sons.
All flesh is humbled, Westminster's bold race
Shrink, and confess the genius of the place:
The pale boy-senator yet tingling stands,
And holds his breeches close with both his hands.

POPE.

that stirs. It grows naturally in those cold mountains where the dark fir rises its motionless leaves in the shape of a pyramid; thus contrasting in shape, as much as in colour, and from whence we should be instructed to follow nature in our grouping; for,

"What varied beauties shine upon her face;
Here all is beauty, harmony, and grace!"

The birch approaches nearer the Arctic pole than any other tree, preserving all its vigour in those icy climates, that are almost destitute of other vegetable productions. It flourishes even in the bosom of expiring nature, and is the only tree that Greenland produces—

——— "Where,
Vast regions, dreary, bleak, and bare!
There, on an icy mountain's height,
Seen only by the moon's pale light,
Stern Winter rears his giant form;
His robe a mist—his life a storm."

In Russia, Poland, and other northern places, the twigs of this tree cover the dwellings of the peasants instead of tile or thatch.

In our ornamental plantations the silvery bark of the birch shines as conspicuously through the branches of other trees, as its airiness is marked by the smallness of its leaves,

when contrasted with other natives of the forest. It carries the mind of the man of letters back to early days; for,

> " Thus is nature's vesture wrought,
> To instruct our wandering thought."

The bark of this tree consists of an accumulation of ten or twelve skins, which are white and thin, like paper; the use of which it supplied to the ancients, and of its imperishable nature let us

> " Ask, now, of history's authentic page,
> And call up evidence from every age."

The books which Numa composed about 700 years before Christ, were written on the bark of the birch-tree; and, if we may depend on the testimony of Pliny and of Plutarch, they were found in the tomb of that great king, where they had remained four hundred years. Numa had forbidden his body to be burnt, according to the custom of the Romans; but he ordered it to be buried near Mount Janiculum, with many of the books which he had written. The body of this philosophical monarch was entirely consumed by time; but the books, which treated of philosophy and religion, were in such a state of preservation, that Petilius, the prætor, undertook to read

them by command of the senate. On the report which he made respecting their contents, they were ordered to be burnt; for, as they contained the reasons why he had made innovations in the form of worship, and in the religion of the Romans, their being made known to the citizens might have endangered the prosperity of their state, as it must have appeared that their religion was built upon error, and that it was merely political.

Evelyn tells us, that, in a history of Sweden, it is stated that the poor people grind the bark of birch trees to mingle with their bread-corn.

Christopher the Third, king of Denmark, in 1450, received the unjust surname of *Berkâ Kânung*, which signifies king of bark, because, in his reign, there was such a scarcity, that the peasants were obliged to mix the bark of this tree with their flour. It is to be regretted, that the thoughtless people of every kingdom charge their monarch with all the afflictions which befall their country. The cares of the state are but ill repaid by unadulterated bread, or luxurious diet! The men who fill these perilous situations should at least receive, if not *our love, our pity!*

Although every species of tree or plant that we look upon in the shrubbery creates a

new idea, or gives a fresh turn to our thoughts, yet, perhaps, no two persons think alike during such contemplation; for different minds incline to different thoughts, as different men pursue different objects.

> "On this side and on that, men see their friends
> Drop off, like leaves in autumn; yet launch out
> Into fantastic schemes, which the long lives
> In the world's hale and undegenerate days
> Could scarce have leisure for."

These were the reflections of Blair. The magistrate must think of the Roman lictors when he sees the birch, as naturally as the country pedagogue will think of the truant, or the truant of the pedagogue. The chancellor who becomes broomseller will reflect how inadvertently laws may be broken. The nautical man pictures to himself our early navigators, in their precarious though skin-lined barks of birchen basket-work.

The antiquarian and the historian, as they pass this tree, will have repassing in their minds the events of ancient times, that have been made known to us by the bark of the birch. The military man sees in the birch, the tree that afforded the old English warriors arrows, bolts, and shafts; and our artillery-men behold a wood whose charcoal gives them their com-

bustible powder. The botanist, finding nothing but anthers in the catkins that so securely protect the pollen until the female flowers expose their stigmas in the spring, to catch the impregnating dust which forms the future forest, exclaims, with Thomson,

"Was every faltering tongue of man,
Almighty Father! silent in thy praise,
Thy works themselves would raise a general voice;
Even in the depth of solitary woods,
By human foot untrod, proclaim thy power."

The physiological student, knowing how abundantly this tree abounds in juices, says,

"Mark, too, the sap, that, ere its process ends,
In course alternate, rises or descends;
In active virtue, how its liquid power
Creates the wood, the leaf, the fruit, and flower."

The vernal sap of these trees is well known to have a saccharine quality; and from it the forest housewife makes an agreeable and wholesome wine. Pomona's bard says,

——"Even afflictive birch,
Cursed by unletter'd idle youth, distils
A limpid current from her wounded bark,
Profuse of nursing sap."

Loudon tells us, in the Encyclopædia of Gardening (page 189), that a birch-tree has been known to yield, in the course of the

bleeding season, a quantity of sap equal to its own weight. This sugary sap is obtained by boring holes in the body of the tree, in the beginning of March, before the leaves shoot out, and placing in the hole a fosset made of an elder stick, with the pith taken out; setting vessels, or hanging bladders to receive the liquor. It is common to tap large trees in four or five places at a time; and a number of trees should be bored on the same day, so as to afford a sufficient quantity of juice in a short time; for the sooner it is boiled the better. It was formerly sweetened with honey, but lately sugar has been substituted to the proportion of from two to four pounds to every gallon of liquor. This is gently boiled as long as any scum rises; which is cleared as fast as it forms. It is then put into a tub to cool, after which it is tunned into a cask, and bunged up when it has done working. It is ready for drinking when a year old. This wine is said to be aperitive, detersive, and cosmetic. Formerly, when spice was more used in wines, cinnamon was added to birch wine.

It is thought that the trees are but little injured by being thus perforated in the spring, when the sap is ascending. Evelyn says he observed a birch that had been for many

years regularly tapped, which thrived and grew to an unusual size for this kind of tree.

This tree, which some learned etymologists think gave the name to Berkshire, should have a place in all extensive shrubberies, or plantations, from its picturesque appearance, and from its being amongst the earliest trees that regale us with its fragrant buds. Indeed, this vernal perfume seems renewed after every shower, and those birch-trees whose pliant twigs are pendent, we consider more cheerful and not less beautiful, than the weeping willow.

The timber of this tree is less valuable than most others in our woods, yet it may, in certain situations, be turned to good account, since it will grow to advantage upon land where other timber will not thrive. Miller says it loves a dry barren soil, where scarcely any thing else will grow; and will thrive on any sort of land, dry or wet, gravelly, sandy, rocky, or boggy; and those barren heathy lands which will scarcely bear grass. In Martyn's edition of Miller, we are told that upon ground which produced nothing but moss, these trees have succeeded so well as to be fit to cut in ten years after planting, when they have been sold for near ten pounds the acre, standing, and the after produce has been considerably increased; and as the woods near London

have been grubbed up, the value of these plantations have been advanced in proportion. For this reason, those persons who are possessed of such poor land, cannot employ it better than by planting it with these trees, especially as the expense of doing it is not great.

The wood is used for packing-cases, turners' ware, wooden shoes, and clogs; also for gates and rails. It likewise makes excellent charcoal. The branches are woven into hurdles for the shepherd, and the twigs are bound into besoms for the housewife. The bark is of great use in dyeing wool yellow, and particularly in fixing fugacious colours. The Highlanders use it for making ropes for their wells, whilst their tanners use it for tanning leather; and they sometimes burn the outer rind instead of candles. The leaves afford good fodder to horses, kine, sheep, and goats. The seeds of the birch-tree are the favourite food of the siskin, or *fringilla spinus* of Linnæus, a bird of passage commonly called Barley-bird in Sussex, because it visits that county in the barley seed-time.

Old medical writers tell us that the leaves of the birch-tree are good for the dropsy; and that next to the juniper, the wood was esteemed the best to burn in times of pestilence and contagious distempers.

Gerard says, the branches "serve well to the decking up of houses and banquetting roomes for places of pleasure, and beautifying the streetes in the crosse or gang weeke, and such like."* And Coles observes, in 1657, that as he "rid through little Brickhill, in Buckinghamshire, every signe post in the town was bedecked with green birch."

*. This was rogation week, which was called in the north of England, gang week; from the *ganging*, or processions then used, by the people's going to confession. The Belgians call it *cruis*, or cross week, as it was also called in some parts of England; because the cross was carried before the priests in the processions made in that week. It is called rogation week from rogo, to ask or pray; because on Monday, Tuesday, and Wednesday, the litanies are sung, and abstinence from flesh is enjoined by the church, not only by a devout preparation to the feast of Christ's glorious ascension and pentecost, but also to supplicate the blessing of God on the fruits of the earth.

BIRD CHERRY.—PADUS.

Natural order, Pomaceæ. Rosaceæ, Juss. A genus of the Icosandria Monogynia class.

——"Check the progress of thy vasty toil:
First choose thy objects from thy native soil,
Where, daily seen, they own thee for their lord,
And, born with thee, shall greater joy afford."

DELILLE.

THIS aboriginal of our woods possesses beauties that should oftener secure it a situation in the shrubbery, and more frequently a place in ornamental hedge rows; for at the present day it is more uncommon in our plantations than the flowering shrubs of Persia, China, or America. Let us not, in our admiration of exotic beauties, and love of foreign talent, neglect our native plants, or impoverish our national abilities. Too often we see the well educated daughter of an English clergyman, neglectedly drudging through the yearly duties of a governess for the paltry pittance of twenty pounds, whilst the daughter of a Swiss peasant or a Parisian perriwig-maker is caressed and rewarded with from five to ten times the sum.

The Latin name of *Padus* for this tree was derived, according to Parkinson, from the offensive smell of the wood; but we are more disposed to think that the Romans named it after their celebrated river Padus, now called the Po. The berries are eagerly sought after by the birds, and as the leaf slightly resembles that of the cherry-tree, hence the name of Bird-cherry. In Scotland it is called Hogberry. Linnæus has united the bird cherry, the apricot, the cherries, and the common and Portugal laurels, with the plums. Miller treated on them separately, under *padus*, *armeniaca*, *cerasus*, and *prunus*; uniting the laurels with *padus*; Jussieu separates *cerasus* and *armeniaca* from *prunus*; and unites padus and the laurels with the former; making the difference to consist only in the fruit or drupe. The French call it *cerisier à grappes*.

This pretty flowering shrub was much more common in the time of Gerard than at present. He tells us that in 1596 it grew wild in the woods of Kent, where it was used as a stock to graft cherries on, particularly the Flanders cherry. This old author adds, "This wilde tree groweth very plentifully in the north of England, especially at a place called Heggdale, neere unto Rosgill, in Westmerland, and in diuers other places about

Crosbie Ravenswaith, and there called hegberrie tree: it groweth likewise in Martome Parke, fower miles from Blackburne, and in Harward, neere thereunto; in Lancashire almost in euerie hedge." It is also a native of most parts of Europe, in woods and hedges, and is frequently to be seen in the northern and temperate parts of Russia, and all Siberia, and it is common to the woods of Scotland.

The bird cherry rises from ten to fifteen feet in height, spreading its branches to a considerable distance, which are covered with a purplish bark. Neither its branches or leaves are numerous, therefore almost any plant will grow beneath it; and we love to see its stem rise out of a clump of juniper or any dwarf evergreens over which its long loose pendent bunches of white flowers hang with peculiar airiness and grace in the months of April and May. Its black fruit, which hang in bunches like currants, have also a pleasing effect in the month of August, and the yellowish green of its ovate-lanceolate foliage is not less pleasing when contrasted by darker tints. Although the fruit is nauseous to the taste, it gives an agreeable flavour to brandy, and many persons add it for the same reason to their made wines. The wood is tough and smooth, and used for whip and knife handles.

Linnæus says, that sheep, goats, and swine, eat the leaves, and that cows are fond of it, but that horses refuse it.

The variety with red fruit, commonly called the Cornish cherry, flowers two or three weeks later, and is therefore not so desirable in the shrubbery.

The bird cherry may be propagated by layers, which should be performed in the Autumn; but the handsomest trees are raised from seed, which should also be sown at the same season upon a bed or border of good ground. A wet soil is not congenial to this tree.

Medical writers tell us that a decoction of the berries is sometimes given with success in the dysentery; and Dale informs us that in his time the fruit was used to hang about the necks of children, as a cure for the epilepsy. A strong decoction of the bark is used by the Finland doctors, who have private doors for private patients, and its beneficial effects are corroborated by the testimony of M. Broerland, in the Stockholm acts. He directs six ounces of the dry, or eight of the fresh bark to be boiled away in eight pints of water to four: the dose is four ounces four times a-day.

BLADDER SENNA.—COLUTEA.

Natural order. Papilionaceæ, or Leguminosæ.
A genus of the Diadelphia Decandria class.

——"Various trees their various fruits produce,
Some for delightful taste, and some for use;
Hence sprouting plants enrich the plain and wood,
For physic some, and some design'd for food."

"How useful all! how all conspire to grace
Th' extended earth, and beautify her face!"

BLACKMORE.

THE dramatic author seeks for singularity of character to make his comedy amusing, which at the same time acts like a foil to render his beauties more brilliant, whilst the insipid novelist, who treats us only with lilies and roses, sees them wither unnoticed for want of contrast.

Thus we introduce the *colutea arborescens* into our shrubbery, not so much for the beauty of its dingy yellow papilionaceous blossoms, as for its curious inflated and transparent bladder-like legumes, which being slightly suspended from the slender spray, have a novel and odd effect between the winged leaves of this plant, which are composed of

four or five pairs of oval heart-shaped lobes, placed opposite, and terminated by an odd one.

Children find amusement in dancing on, or pressing these little bladders between their fingers, which make a considerable explosion as the air escapes; hence the French name this shrub *Baguenaudier*, "fruit dans des vessies rougeâtres qu'on fait claquer par la pression pour baguenauder, d'où son nom."*

The Hortus Kewensis states from Lobel, that this plant was first cultivated in England in 1570, but on referring to the third part of Turner's Herbal, which was printed in 1568, we find that it was then common in this country. This author says, "There hath bene a greate errour of late yeares amonges many men, whiche haue thought that sene had ben a tre, which groweth in manye places of Englande." He then describes the true senna, and adds, "The tre that they call sene in England is colutea."

Gerard says, in his History of Plants of 1597, "*Colutea*, and sene, be so neere the one vnto other in shape and shew, that the vnskilful herbarists haue deemed *colutea* to be the right sene." He adds, "*Colutea*, or bastard

* Pirolle.

sene, groweth in diuers gardens, and commeth vp of seed; it quickly commeth to perfection, insomuch that if a stick thereof be broken off and thrust into the grounde, it quickly taketh roote, yea, although it be done in the middle of sommer, as myselfe have often prooued; the which bring foorth flowers and fruite the next yeere after."

Most writers on plants are of opinion that the ancient Greek and Latin medical authors were unacquainted with the true senna, and that its virtues were made known to us by the Arabians, who call it *sena*. The bladder or false senna, *colutea*, is the κολούτεα of Theophrastus, whose writings inform us that in the neighbourhood of Athens it was used to fatten sheep; which it greatly facilitated. We are not aware that the experiment has ever been made in this country, but the philosopher's observation is worthy of notice to those who have flocks on the downs, where it would grow as well as furze if sown in the same manner.

Parkinson, in "The garden of pleasant Flowers," which he dedicated to Henrietta, the beautiful queen of the unfortunate Charles the First, tells us that the leaves of the bladder senna are known to be a violent purgative "and therefore let every one beware that they

use not this instead of good sena, lest they feel to their cost the force thereof;" but later authors assure us that the leaves answer all the purposes of senna, and Allioni has given particular directions for the preparation of them. The seeds, in a quantity of a dram or two, excite vomiting.

This plant grows without culture in the south of France, the warmer parts of Switzerland, and in Italy, especially on mount Vesuvius, where Mr. Ray found it even in the ascent to the crater, where there were scarcely any other plants, and where

> ——— "the mountain shakes,
> Burnt to its entrails; while in thunder breaks
> Its bursting sides; torn from their native bed
> The splinter'd rocks their smoky ruin spread."
>
> DELILLE.

The foliage of this plant is of a greyish green, and it will grow to the height of 10 or 15 feet in the shrubbery, where it is seldom to be seen without some few blossoms from May to November. The bladders are in their beauty in September, but they do not open to expose the double row of their inmates until October has ripened and blackened their little kidney-shaped seeds.

The pericarp of this fruit is not more delicately thin than beautifully veined. The two

valves which form the legume, or bladder, are so securely closed, as not even to allow the confined air to escape. The upper side of the valves is joined by two umbilical cords, which first convey the impregnating farina from the top of the pod to each of these little vegetable eggs, after which their nourishment enters the cord from the stem, until they have acquired the power of becoming parents to future shrubs.

The oriental bladder senna, *colutea cruentâ*, was discovered in the Levant by Tournefort, whose method of classifying plants stood unrivalled until the labours of Linnæus appeared. This plant, which is now common in the shrubbery, was cultivated by Miller in 1731. Its flowers are smaller than the common sort, and of a dark-red colour marked with yellow.

The Levant colutea bears the name of Pocock's bladder senna, because the seeds were first brought to England by the Rev. Dr. Pocock, who gathered them in Turkey.

This shrub seldom grows more than six or seven feet high; the branches are very slender, and much more pliant than those of the common sort, and therefore it grows less erect. It is also distinguished from the common sort by the leaves being composed of

nine pairs of leaflets, which are much smaller. It flowers also a month earlier, and the blossoms are of a brighter yellow, and there is a succession of them till late in the Autumn, on which account it is preferred in our shrubberies. Dr. Russell, who resided many years at Aleppo, informs us that this shrub is very common about that city. These plants are all easily propagated by sowing their seeds in the spring in a bed of common earth. The plants raised from suckers are never so fine as those produced from seed; and Mr. Curtis tells us (he says from experience) that a wet soil is fatal to the common bladder senna. Mr. Miller recommends the hanging of lobster claws, or bowls of tobacco pipes, on these shrubs, to entice the earwigs, who eat their way into the bladders; and thus housed destroy the seed.

BOX-TREE. — BUXUS.

Natural order, Tricoccæ. Euphorbiæ, Juss. *A genus of the Monœcia Tetrandria class.*

"How goodly looks Cytorus, ever green,
With boxen groves."

DRYDEN'S *Virgil, Geo.* ii.

THIS tree, which so beautifully bedecks and gives a vernal appearance to our Surrey hills in the depth of winter, was called by the Greeks Πύξος, from πύκα, dense, thick; διὰ τὸ πυκνὸν τοῦ ξύλου, the timber being very dense and close.

We consider the English name of this plant to be a corruption of the Latin word *buxus*, or from the Spanish *box*, and that it gave the name of box to those little wooden cases made by the turner, rather than derived its own from these cases. This shrub certainly gave the name of Box-hill to those delightful downs near Dorking, in Surrey, and where the shrub seems to have grown naturally, as it is known to have abounded there long before the time that the Earl of Arundel retired to that spot, and as it is stated, planted the box.

Evelyn did not neglect to visit this spot, as we find by his diary, 27th July, 1655, where he writes, "I went to Boxhill to see those rare natural bowers, cabinets, and shady walkes in the box copses." He also observes that "at Mickleham there are goodly walkes, and hills shaded with yew and box, as render the place extreamely agreeable, it seeming from these evergreens to be summer all the winter." He tells us in his Silva that "these trees rise naturally at Boxley, in Kent, in abundance, and the county of Surry, giving name to that chalky hill near the famous Mole or Swallow."

This spot is still visited by the admirers of beautiful scenery; but in the time of Charles the Second, before the inhabitants of the court and the city of London were so well acquainted with the baths of Neptune, the neighbourhood of Boxhill and the waters of the Mole were thought of sufficient efficacy, and of a sufficient distance, to dissipate both gloom and disease.

The box was formerly much more plentiful in England than at present; Boxwel, in Coteswold, Gloucestershire, was named from this tree; and Gerard says (in the time of Elizabeth), "It groweth upon sundry

waste and barren hils in Englande." And Parkinson tells us, in the time of Charles the First, "that it is found with us in many woods, and wood grounds." Woodward remarks it as plentiful on the chalky hills near Dunstable. It is also a native of most parts of Europe, as well as of many parts of Asia, as about Mount Caucasus, in Persia, China, Cochin-China, &c., and also in America. Pliny tells us that the largest box-trees grew anciently in Corsica, and in so great abundance that it caused the honey of that island to be bitter. In Persia the box-shrub grows to a considerable-sized tree, and of so elegant a form, that the Persian poets often compare their beautiful grown women to these trees. Ghilan, one of the Persian provinces, is remarkable for growing great quantities of box-wood, on which account their caravans consist of horses, mules, and cows; for camels are not brought into the province, because they have an extreme fondness for box, which causes their immediate death if they eat of it.

We believe box is the only European wood that will sink in the water, and that is sold by weight. Pliny observes, that it is as hard to burn as iron, and that it will neither flame nor burn clear; nor can it be converted into charcoal. He tells us that it was highly valued

for its hardness and yellow colour; and Virgil says—

"Nor box, nor limes, without their use are made,
Smooth-grain'd, and proper for the turner's trade;
Which curious hands may carve, and steel with ease invade."

From the Latin poets we learn that this wood was then employed as at present, in forming musical flutes.—

Si buxos inflare juvat. VIRGIL.

"If it pleases you to breathe into the box."

——— *non illos carmina vocum,*
Longave multifori delectat tibia buxi. OVID.

"Neither does the melody of the voice, nor the long pipe of many-holed box delight them."

The ancients, also, made combs of this wood, as may be seen in Martial. In modern times, Cowley has thus mentioned it:—

——— *non ultima belli*
Arma puellaris; laqueos hæc nectit amantûm,
Et venatricis disponit retia formæ.

And which is thus translated in the Silva:—

——— "box-combs bear no small part
In the militia of the female art;
They tie the links which hold our gallants fast,
And spread the nets to which fond lovers haste."

Evelyn also states, that "It is of special use for the turner, engraver, carver, mathema-

tical instrument-maker, comb and pipe or flute-maker; the roots for the inlayer, and cabinet-maker," &c. It is still in great demand with the turner for screws and numerous other articles, as well as for making musical wind-instruments. German flutes have been principally formed from this hard and smooth wood; but the professors of that instrument now prefer those that are made from the cacao-tree, as they are not so subject to swell by using as those made from box-wood; which swelling often causes a variation of half a note, as after being played upon for a short time the tone becomes sharper.

We do not find that the physicians of ancient days or modern times have used this vegetable in medicine; but the quacks of ignorant ages suffered nothing to escape them by which they could impose on the credulous, and in their works we find the virtues of the box extolled for diseases that delicacy forbids us to mention.

We perfectly agree with old Gerard, who observes, "that it is more fit for dagger-hafts than to make medicines; though foolish empiricks and women leaches do minister it against the apoplexy, and such diseases."

From Parkinson we learn that it was used to change the hair to an auburn colour; and in the ephemerides of the curious there is the

following account of the efficacy of box-wood in making hair grow: "A young woman in Gunbery, in Lower Silesia, having had a malignant dysentery which occasioned the falling off of all her hair, was advised by a person some time after her recovery (as her hair was not likely to grow again of itself, her head being then as bare as the hand) to wash it all over with a decoction of box-wood, which she readily did, without the addition of any other drug. Hair of a chesnut colour grew on her head, as she was told it would do; but having used no precaution to secure her face and neck from the lotion, they became covered with red hair to such a degree, that she seemed but little different from an ape or a monkey."

If this poor Silesian girl was actually thus disfigured by the box, it was not more than the box-tree itself has been disfigured in our old gardens; where, by the aid of shears, it was metamorphosed into Harlequins and Columbines; and even at present we sometimes see the attempt of transforming it's branches into vegetable peacocks and leafy urns, which must be as offensive to Silvanus as it is to nature. Pliny tells us, that it was used in the Roman gardens to divide them into squares, &c., where it was kept thick by clipping. It

is now judiciously admitted into the pleasure-grounds, as this evergreen will flourish under the deepest shade, and will thrive in any soil or exposure, although it is fond of a calcarious soil, and a dry situation open to the sun. In appearance it is but little inferior to the myrtle, and therefore deserves a place in the shrubbery, as a fore-ground evergreen. The branches were in great request among our ancestors for decorating their houses, and it is still used to fill up spaces between exotic plants that are let out by rout florists. We also meet with it in our churches at Christmas; for the origin of which custom, see Holly.

Where box-trees are required, they should be raised from seed, which should be sown soon after it is ripe, in a shady border of light loam or sand; but it is generally propagated by cuttings planted in the autumn, and kept moist until they have taken root.

Dwarf box is increased by parting the roots or planting the slips. The best time for transplanting this shrub is October; though it may be removed almost at any time, except summer, if it be taken up with a good ball of earth.

BRAMBLE.—See *Pomarium Britannicum*.

BROOM.—SPARTIUM.

Natural order, Papilionaceæ, or Leguminosæ.
A genus of the Diadelphia Decandria class.

——— "the broom,
Yellow and bright as bullion unalloyed,
Her blossoms."

This shrub, whose rushy twigs are so gaily decked with vegetable butterflies of flamy gold, has caused much dispute amongst the learned etymologists whether it be the *Spartium*, Σπαρτιον, of Dioscorides or not. The Latins called it *genista*, and their great natural historian (Pliny) says that he was not able to ascertain whether *genista* was the same as *Spartium* or not; but from what he has stated, as well as from what the oldest Greek authors have written, we are of opinion that the *Spart* of the old Greeks was not the same as the *Spartium* of later days. The first cordage and ropes which the Greeks made for their nautical vessels was formed of rushes, and their word σχοινος signifies equally a rush and a rope; but when they became acquainted with

Spain, where this rushy shrub grows in abundance, particularly about Carthagena, cordage was formed from those twigs, and most probably the broom was then first called *Spartium* by the Greeks. The origin of its Latin name *genista*, or *genesta à genuum flexilitate*, from it's flexible nature; or, according to some, *quod facile generet, speciemque propagaret*, because it is easily increased, and with difficulty destroyed in its natural situation.

The English name of this plant, which Turner spelt "browme," has no resemblance to any other language except the Dutch, who call it *brem*.

> "Even humble broom and osiers have their use,
> And shade for sheep, and food for flocks produce;
> Hedges for corn, and honey for the bees,
> Besides the pleasing prospects of the trees."

The broom being thus recommended to us by the Prince of the Latin Poets, has a strong claim to a situation in the shrubbery, particularly the Spanish broom, *Spartium junceum*, which was an inmate of our gardens prior to 1564, when Turner wrote his Herbal; for he says, "It came of late to us out of Spain." Perhaps it was given to us by Spain, when their king was a husband to a British queen; and however slight such a gift might have

appeared at the time, it now shines more ornamentally in the gardens of this country than the brightest gem of the mines of the New World could have done in the crown.

In favourable situations, the Spanish broom approaches nearer to the size of a tree than an humble shrub; and as it continues in blossom from July to October, it is a great enlivener to Nature's universal green robe, which at that season is but slightly spangled with gay colours; therefore it may with great advantage be planted so as to peep over the sombre evergreens, like the rays of the sun emerging from dense clouds. The common broom, *Spartium scoparium*, may as judiciously be placed at the foot of towering trees, where it will shine as gay in the gloom as a gipsey's fire in a forest.

The broom should also be planted in the corners of fields, and in those hedgerows which are seen from the shrubbery or the dwelling; particularly where the view is caught beneath or through the branches of trees, for then the yellow field is seen as gaily interchanged with a variety that is as rich and as pleasing as the tiara of emeralds and gold.

"Where the fond eye in sweet distraction strays,
Most pleased when most it knows not where to gaze!"

The Portugal broom, *multiflorum*, is as pleasing by it's delicacy, as the Spanish broom is enlivening by it's gaiety. This shrub, which appears in May and June, clad like a virgin bride in pearls, should be placed where it's flexible rods are contrasted by broader foliage. It forms one of the most elegant fore-grounds to dark evergreens, and harmonizes well with most flowering shrubs; for it's rushy spikes, which seem rather studded with flakes of snow than bedecked by Flora's hand, are too delicate to offend by any neighbourhood, however flaunting it may be, whilst it's graceful waving bend so well accords with the chastity of it's colour. The white flowering broom is now considered as a hardy plant in our shrubbery; although no longer back than 1724, when Miller published his first edition of the Gardener's Dictionary, he writes in it, "The "Spanish white broom is a very tender plant "in England, and will seldom stand out the "winter; therefore it is cultivated in pots, "and kept as bays, laurus tinus, myrtle, &c."

We have now two species of white flowering broom. The first, we are told in the Hortus Kewensis, was introduced by Mr. Bentick, in 1690; but Parkinson speaks of it familiarly in 1640, but does not say posi-

tively that it was or was not then cultivated in England.

Clusius, the celebrated German botanist, who with such indefatigable labour collected the plants of Spain, Languedoc, England, the Alps, Austria, some parts of Hungary, and those about Frankfort, during the 16th century, tells us, that he observed the white single-seeded broom, *monospermum*, about Cadiz, near the coast, flowering in February, and also abundantly in Arragon. Osbeck remarks, that it flourishes like willow bushes along the shores of Spain, as far as the flying sands reach, where scarcely any other plant grows except the creeping restharrow. The use of this species of broom is very great in stopping the sand. It converts the most barren spot into a fine odoriferous garden by it's flowers, which continue a long time. The leaves and young branches are delicious food for goats. It serves to shelter sheep, goats, and hogs, from the scorching heat of the sun. The twigs are used for tying bundles; and all kinds of herbs that are brought to market are fastened together with them. The Spaniards call it *retamas*, from the Arabic name *rætam*. Forskahl tells us, he found this plant in Arabia; and Desfontaines in Barbary, on the sandy coast.

The *Spartium multiflorum* is a native of Portugal and Mount Atlas. It was first introduced to this country by Mr. James Gordon, about the year 1770. We have now thirty distinct species of broom; some of which have several varieties, which we shall pass unnoticed, excepting the Spanish broom with double blossoms, which is very unusual, in papilionaceous flowers.

The common broom is not deficient in it's uses in rural economy and medicine. In most country villages it is known to the housewife as affording besoms for sweeping; from whence originated the name of "broom" for those domestic cleansers. Ammianus Marcellinus, a Roman historian of the fourth century, relates, that in his time there flourished at Rome the broom, which was made use of to clean the place where the nobility assembled; which presaged, says this pagan author, that men, the very dregs of the people, would be raised to the first ranks.

In the northern parts of Great Britain it serves for thatching cottages, corn, and hay ricks; and it makes an excellent substitute for reeds in fences or screens. In some parts of Scotland, where coals and wood are scarce, it is said whole fields are sown with it for fuel. The branches are known to be capable of

tanning leather, and of being manufactured into cordage or coarse cloth. Pliny tells us, (Book xix. Chap. 2.) that the shepherds in Spain clothed themselves with it, and covered their dwellings with the branches; made themselves shoes with it; and that it formed their fuel and their torches; and he affirms, that no cordage is so durable in salt water as that made from the fibres of the broom. He states, that it rather improves in the water than decays; although, for dry purposes, it is not so lasting as ropes made from hemp. It appears to have been universally employed in his time for nautical purposes.

This author also tells us, (Book xix. Chap. 1.) that in Asia, they steeped the broom in water for ten days, to obtain the fibres more easily; of which they made their fishing nets, because they endured the water without rotting better than other nets.

It is well known how eagerly the inhabitants of the hive hunt for their sweets in the gay blossoms of the broom; which in ancient times, when honey was the domestic sweet, and sugar was only known as a medicine, it was of the utmost importance, as we have already noticed under the head of Thyme; but to which we shall add what

Pliny tells us (Book xxi. Chap. 12.) from his own knowledge. — The inhabitants of Hostilia, a town on the banks of the Po, when they observed the food of the bees began to fail, took the hives up in the night when the bees were housed, and placed them in a kind of boat or barge, which they rowed four or five miles up the river, and in the morning the bees went out and found flowers that had not been robbed of their nectar; and this they continued to do, until the bee-masters perceived the boats sink to a certain depth by the weight of the honey and wax thus collected, when they were floated home to discharge the treasure which these emblems of industry had rifled from the bosom of Flora.

The peasants in Switzerland have a similar practice to this day; for in the spring of the year they pack up their dairy implements, and drive their large herds of cows up the mountains, where they feed during the summer; and the business of making cheese is continued in their *challets* or little huts until the autumn, when the cattle is driven home, and the cheese delivered to the proprietors. The emigration to and return from the mountains is equally looked forward to with pleasure. The finest cow of each drove has the largest bell

attached to its neck, and ascends and descends the mountains, decorated with chaplets and wreaths of flowers.

It seems a day of rejoicing with the kine as well as the peasants, for they express their joy equally on their departure and return, by loud and continued lowing.

The flower-buds of the broom, just before they become yellow, are pickled in the manner of capers, and eaten as such in sauce. Many think them wholesome for the stomach, and good against diseases of the spleen and liver. Dr. James says, "Broom is an aperitive and hepatic shrub, opening obstructions of the liver and spleen; and is very good for the dropsy, when infused in common drink." Dr. Mead relates the case of a dropsical patient who was cured by taking half a pint of a decoction of green broom-tops, with a spoonful of whole mustard-seed, every morning and evening; the patient had been tapped three times, and had tried the usual remedies before. An infusion of the seeds, drunk freely, has been known to produce similar effects: but we must not infer from these cases that it is an infallible remedy for every dropsical case. We might as well expect the physician that had cured a patient of this disorder should restore to health every person that laboured

under the same complaint, and this would be as unreasonable as it is unjust to condemn the broom altogether. Dr. Withering tells us that he knew the broom succeed in curing one case that was truly deplorable; but out of a great number of cases, in which it had a fair trial, this proved a single instance. Dr. Cullen ordered half an ounce of fresh broom-tops to be boiled in a pound of water, till one half was consumed, and gave two table spoonfuls of the decoction every hour till it operated as a laxative; repeating the medicine every day, or every second day: by which some dropsies have been cured.

Cordus observes that this plant smells like the elder. This may be the cause why most cattle reject it. We observe that flies avoid both of these plants. Thompson alludes to the fondness which kine show for broom fields, which they frequent much during the summer heat, probably for the sake of brushing off the swarms of flies with its tough yielding branches. In Guienne and Auvergne, the people eat the blossoms of the broom in salads; and in this country the tender tops have been used as a substitute for hops in brewing.

We have seen some beautiful cabinet goods veneered with this wood, which, when old,

obtains a sufficient size for that purpose, for which it is a most ornamental material.

The species of broom we have noticed may be raised by sowing the seeds in the spring in common earth.

We have observed that the Spanish broom grew to the greatest height where it had not been transplanted. In one instance, where we dropped the seed in a rich soil, it grew to the size of a common laburnum in a few years, and was little inferior to that tree in beauty, and was ornamental to the shrubbery when the yellow tresses of the laburnum had ceased to shine.

The white flowering broom being more tender, should have a warm and sheltered situation.

Evelyn recommends the cultivation of broom, and says, "This is another improvement for barren grounds, and saver of more substantial fuel: it may be sown English, or (what is more sweet and beautiful,) the Spanish with equal success. In the western parts of France, and with us in Cornwall, it grows to an incredible height."

CEDAR OF LEBANON. — PINUS CEDRUS.

Natural order, Coniferæ. A genus of the Monœcia Monadelphia class.

——"Cedars here,
Coeval with the sky-crown'd mountain's self,
Spread wide their giant arms." MASON.

"No more the cedar to the turban bends;
For us th' imperial tree from Lebanon descends."

ERE we repine at the losses which time and circumstances have made in our fortunes or our families, let us reflect on the history of the country from whence this tree first sprung, and we shall find our individual troubles and changes diminish in the comparison as a grain of sand to a mountain.

Lebanon is stripped of its forest, and the first chosen People of God are driven from their country; the land of milk and honey is become a desert; and Christians are scorned and persecuted on the spot where Christ taught his blessed religion. The most splendid temple that human ingenuity ever erected is "passed away, like the baseless fabric of a

vision," and this monument, which displayed the power and the riches of the wisest monarch that ever existed, has had its stones turned into dust, and its gigantic beams of cedar into ashes, that have flown before the wind, "leaving not a wreck behind." The biblical reader will form an idea of the ancient extent of the cedar forest, by the fourscore thousand hewers which Solomon sent to hew the timber on Mount Lebanon, and it is probable that from that time Mount Lebanon never recovered the devastation then made, for "he covered the temple with beams and boards of cedar. And he built chambers against it, which rested on the house with timber of cedar. And the cedar of the house within was carved with knops and open flowers: all was cedar — there was no stone seen. And he built the inner court with three rows of hewed stone, and a row of cedar beams."

Hiram also built many palaces for Solomon, within and without the walls of Jerusalem, all of which we may conclude were formed of this favourite timber, for we read that "Solomon's house, also of the forest of Lebanon, was covered with cedar upon the beams: and the porch of judgment was covered with cedar from one side of the floor to the other. And

the great court of his palace was with three rows of hewed stones, and a row of cedar beams."

At the same time, Solomon built a fleet of merchant ships, at Tyre, which must also have thinned the forest, both of fir and of cedar. We observe Hiram's answer to Solomon is, "I will do all thy desire, concerning timber of cedar, and concerning timber of fir."

Solomon, also, celebrated the cedar in his writings which still remain; although a vestige of his gorgeous palaces is not to be found.

"His countenance is as Lebanon, excellent as the cedars."

"The beams of our houses are cedar, and our rafters of fir."

Josephus relates, that Solomon planted cedars in Judea, and the Scripture says, "he made cedars to be as the sycamore trees, that are in the vale, for abundance." Evelyn says, "he doubtless tried many experiments of this nature, none being more kingly than that of planting for posterity."

From that time, it became a custom with the Jews to plant a cedar when they had a son born, and for a daughter a pine, which at their marriage, was cut to form their nuptial bed. The cedar was considered the symbol

of constancy and purity, from its incorruptible nature and constant verdure.

Nearly a thousand years after the time of Israel's wise monarch, Virgil tells us —

> "Yet Heaven their various plants for use designs,
> For houses cedars, and for shipping pines."

We read that Sesostris, or Rameses, the most celebrated of the ancient kings of Egypt, built a vessel of cedar of two hundred and eighty cubits, which was covered with gold, both without and within. According to Lenglet, this was about 600 years before the building of Solomon's temple; but the exact epoch of Sesostris's reign seems uncertain, as Dr. Blair makes it about 133 years later. We are told, that during his reign of 59 years, he extended his dominions, by conquest, over Arabia, India, Persia, and Asia Minor. Thus encircling both the gold and the cedars within his grasp.

Amongst the wonders related as to the durability of cedar wood, it is recorded, that in the temple of Apollo, at Utica, a city of Africa, on the coast of the Mediterranean, which Cato's name has rendered celebrated, there was found timber of near two thousand years old; and at Saguntum, in Spain, there was, says Pliny, a temple consecrated to

Diana, which was stated to have been built 200 years before the destruction of Troy; and it contained a statue of the goddess formed of cedar, which had been formerly taken from the island of Zacynthus, now called Zante, by the inhabitants, when they formed the colony of Saguntus. It will be recollected, that after enduring a siege of eight months, the brave inhabitants of this city, took the terrible resolution of burning themselves with their effects, and the whole city, rather than fall into the hands of Hannibal. The temple escaped the flames, as it stood in a valley without the walls; and the cedar image of the goddess was considered too sacred, even to be touched by Hannibal.

The timber which composed the celebrated temple of Diana, at Ephesus, was of cedar. This temple, which was reckoned one of the seven wonders of the world, was 220 years in building, and may be supposed to have assisted greatly in thinning the forests of Lebanon during that period.

This temple, where Diana was worshipped with such awful solemnity, fell a sacrifice to the flames, on the night that gave birth to Alexander the Great, which was about 285 years before the temple at Jerusalem was destroyed by that horrible trade which am-

bition and revenge deem an honourable profession, because they create and encourage it.

The ancients believed, that the wood of the cedar of Lebanon was imperishable, and that it had likewise the property of preserving from corruption whatever it enclosed. They, therefore, deposited their precious manuscripts in chests made of these trees, which custom gave rise to a proverb, — to praise a work, it was said, "It is worthy of being cased in cedar."

The ancients also drew a juice from the cedar, with which they smeared their books and writings to preserve them from rotting, which is alluded to by Horace; by means of which, it was, that Numa's books were so wonderfully preserved, as its extreme bitter would naturally keep them from worms. The Egyptians used this extract of the cedar, with other drugs, to embalm their dead bodies, believing it would make them incorruptible; and of the durability of these ancient mummies, we have of late years seen extraordinary instances.

"See lofty lebanon his head advance,
See nodding forests on the mountains dance."

POPE.

This sovereign of the forest appears to have been indigenous to Mount Lebanon

only, where its majestic beauties attracted the admiration of the Psalmist, who celebrated its spreading branches by his pen. "It is neither travellers nor naturalists," says Madame de Genlis, "who could have named the oak, the king of trees. The rose will be in all countries the queen of flowers; but, amongst trees, this honour belongs only to the ancient and majestic cedar."

This noble tree has a dignity and a general striking character of growth so peculiar to itself, that no other tree can possibly be mistaken for it. It is instantly recognized by its wide extending branches, that incline their extremities downwards, exhibiting a most beautiful upper surface, like so many verdant banks, which, when agitated by the wind, play in the most graceful manner, forming one of most elegant as well as one of the most noble objects of the vegetable kingdom.

The Latins called this tree *Cedrus*, from the Greek κέδρος, the Arabians call it *Serbin*, the Italians *Cedro*, the Spaniards *Cedro*, the French *Cèdre*.

At what exact period, or by whom, this superb tree was first introduced into this country, is yet to be discoved. Gerard, Parkinson, Johnson, and other old writers on this subject, give us the history of the cedar, but

do not say that they had seen it in England. Aiton makes its introduction as late as 1683, when two trees of this kind were planted in the physic garden at Chelsea, but as these trees were three feet high when planted, it is most probable that others had been previously raised in this country. It is both remarkable and remiss, that Miller should not notice these trees in his first edition of the Gardener's Dictionary, which was published in 1724, and which he compiled within the walls that enclosed these celebrated trees.

Tradition, whose marvellous accounts sometimes want correctness, tells us that Queen Elizabeth planted a cedar of Lebanon, on the north side of Hendon Place, in Middlesex. If the birth of this tree is incorrectly registered, its death is truly recorded, for it was unfortunately blown down by the hurricane that happened on the new year's day, 1779. Its height was seventy feet; the diameter of the branches was one hundred feet; the circumference of the trunk, seven feet above the ground, was sixteen feet; and at twelve feet above the ground, where it began to branch out, it measured twenty-one feet. This tree, which was supposed to be 200 years old, was perfectly sound, and thought not to have reached its maturity.

At the Old Palace or Manor House, at Enfield, in Essex, there is a cedar known to be about 156 years old, which must, therefore, have been introduced prior to those in Chelsea Gardens: it was planted by Robert Uvedale, LL.D. who kept a school in the house. This tree has suffered much by time and storms particularly those of 1703 and 1793; but in July, 1821, it was sixty-four feet eight inches high, and the length of timber was sixty-eight feet and a half, the extent of the branches from N. E. to S. W. eighty-seven feet.

There is also a cedar now growing at Hillington, near Uxbridge, supposed to be about 120 years old: the height of it is fifty-three feet; the extent of the branches, from east to west ninety-six, from north to south eighty-nine feet; the circumference of the trunk close to the ground, thirteen feet and a half; seven feet above the ground, twelve feet and a half; twelve feet above the ground, fourteen feet eight inches; at the height of thirteen feet and a half, just under the branches, fifteen feet eight inches.

Archibald, Duke of Argyle, planted several of these trees at Whitton, which grew to an enormous size, and we now see them extending their horizontal branches in every part of the country, that has possessed a lover

of the grandeur of vegetable nature. They are extremely beautiful in the plantations about Dorking. Where

——— " attractive is the woodland scene,
Diversified with trees of every growth."

In his travels, the antiquarian finds in every country remarkable spots distinguished, and memorable transactions stamped on the memory by venerable trees, which cannot be removed by the whim of men so easily as monuments of marble, or statues of brass, which often travel from their sacred abodes to whereever war drives or gold leads them. How could we have ornamented our country more, than by planting our highest hills with cedars, to have commemorated the victories of the late war? The traveller would have had his mind recalled to the battle of Trafalgar, and his road pointed out by the plantation of the Nile; they would have been glorious landmarks to the British sailors, and lasting monuments of their fame, whilst the interior hills should be marked by these vegetable monuments of military fame, that would console the peasants who had lost their friends in war, and rouse them to resent any attempt at invasion.

The only relic of Dr. James Sherard's famous botanic garden at Eltham, so ele-

gantly displayed by Dillenius, is a cedar of Lebanon, which, Lyson tells us, girths nine feet, at three feet from the ground.

In the Fellows' Garden at Emmanuel College, in Cambridge, on a lawn by the side of the pond, is a cedar that was planted in the year 1730, by Professor John Martin, then a member of that college.

The cedar of Lebanon, is now much more common in this kingdom than on its ancient birth-place; yet, we must not accuse the Mahommedans of destroying these venerable trees, as they almost consider it a sacrilege to demolish a fine tree of any description. Their greatest luxury seems to be that of reclining under the shade of a tree, to enjoy their tobacco. It was remarked by Chardin, at Ispahan, in the 17th century, that the religious Mahommedans chose rather to pray under a very old tree, than in the neighbouring mosque. "They devoutly reverence," says he, "those trees which seem to have existed during many ages, piously believing that the holy men of former times had prayed and meditated under their umbrageous shade."

The few cedars still remaining on Mount Libanus are preserved with a religious strictness. On the day of the Transfiguration, the patriarch repairs in procession to these trees,

and celebrates a festival, called the feast of cedars.

Considering whatever relates to a spot so celebrated in holy writ, must be interesting to most readers, we shall extract observations from the works of those travellers who have visited the mountains, that afforded trees so valuable that Solomon gave cities to Hiram in exchange for them. Ranwolff, who visited Lebanon, in the year 1575, saw only twenty-four trees and two old decayed ones. "We found ourselves," says he, "upon the highest point of the mountain, and saw nothing higher, but only a small hill before us, all covered over with snow; at the bottom whereof the high cedar trees were standing; and though this hill hath in former ages been quite covered over with cedars, yet, they are since so decreased, that I could tell no more than twenty-four that stood round about in a circle; and two others, the branches whereof are quite decayed by age. I also went about in this place to look out for some young ones, but could find none at all." Maundrell, who journeyed there on the 9th of May, 1696, could only reckon 16 large trees, but he found several small ones. This author says, "Having gone for three hours across the plain of Tripoli, I arrived at the

foot of Libanus; and from thence, continually ascending, not without great fatigue, came in four hours and a half to a small village, called Eden, and in two hours and a half more to the cedars. These noble trees grow amongst the snow near the highest part of Libanus, and are remarkable as well for their own age and largeness, as for those frequent allusions made to them in the word of God. Here are some of them very old and of prodigious bulk; and others younger of a smaller size; and the latter are very numerous. I measured one of the largest, and found it twelve yards six inches in girt, and yet sound, and 37 yards in the spread of its boughs. At about five or six yards from the ground, it was divided into five limbs, each of which was equal to a great tree." "What Maundrell has related," says Mr. Miller, "was confirmed to me by a worthy gentleman of my acquaintance, who was there in the year 1720; with this difference only, that in measuring the branches of the largest tree, he found them to be twenty-two yards in diameter. The traveller, Le Bruyn, counted about thirty-five or thirty-six remaining on Mount Libanus when he was there; and would persuade us, it was not easy to reckon

their number, as is reported of the stones of our Stonehenge, on Salisbury Plain.

Nature, who has not neglected to form her lowest vegetable works suitable to the situations where they are scattered, has displayed, in the formation of the cedar, a wisdom that excites the admiration of all naturalists. This noble tree sends forth the lower part of its branches in an upward direction, to convey the rain water by these slopes to the trunk, and from thence to the roots; which otherwise could not receive sufficient moisture, whilst the extremities of the branches bend downwards, that the snows, in the region of which it takes delight to dwell, may slide from its foliage. The cones of this stately tree are endowed with a peculiar mode of sheltering their parts of fructification, for at their season of flowering they bend to the earth; but when they are fecundated, they turn erect towards heaven, to mature their seed; and it is then a most beautiful object to look down upon, as those must acknowledge who have mounted the artificial hill in the Jardin des Plantes, to behold the cedar which Mons. Buffon planted below. The cedar is placed, by Linnæus, as well as the larch, in the same genus with the firs and pines; it

agrees with the former in its foliation, with the latter in being evergreen.

It is pretended that these trees purify the air by their effluvia: the wood, when made into wardrobes or chests, certainly preserves clothes from insects, which are generally found to avoid perfumes and bitter wood. We are told that its smell inspires worshippers with a solemn awe, when used in wainscotting churches or chapels. It may possibly have this effect on the Hebrews and the Catholics, who are accustomed to burn incense in their religious ceremonies; and the Protestant, when he meets with this timber in a place of worship, naturally has his mind carried back to the first temple that was erected to the true God.

"It is matter of surprise to me," says Miller, "that this tree has not been more cultivated in England, since it would be a great ornament to barren bleak mountains, where few other trees will grow so well, it being a native of the coldest parts of Mount Libanus, where the snow continues great part of the year. From the observations I have made of the trees now growing in England, I find that such as have been planted in a strong, rich, loamy earth, have made a poor progress, in comparison with those which have grown upon a stony meagre soil."

We have frequently seen this native of Lebanon planted by those who could not have read or recollected the Psalm, "They shall spread their branches like the cedar tree." For on the banks of the Thames it is frequently seen as near the dwelling as to give the idea of the good old-fashioned piece of furniture, called a dumb-waiter; and it has frequently had its branches lopped off to let light into the eating-parlour; although it is known, that this tree suffers more by cutting and lopping than most other resinous trees. A court dress in a country fair is not a greater burlesque than a cedar of Lebanon in a lawn of forty feet, for the majesty of the tree demands an open, if not an elevated situation; its beauty consists in its formation, which is lost when cramped in its growth. That it is not particularly slow in its increase, will be seen by the progress the cedars in Chelsea gardens had made, which, in the year 1766, "measured twelve feet and a half in girth, at two feet above the ground, and their branches extended more than twenty feet on every side their trunks; which branches, though they were produced twelve or fourteen feet above the surface, did at every termination hang very near the ground, and thereby afford a

goodly shade in the hottest season of the year."

The cedar of Lebanus is now so well naturalized in this country, that the seeds not only ripen but propagate themselves without care or trouble, and it has been observed that they produce and ripen their cones better in hard winters, than in mild ones; which should induce us to plant them on those poor cold hills, where but few other vegetables would grow. Evelyn earnestly recommended them to the planter's attention, and informs us, that he received cones and seeds of the few remaining trees on Libanus; and adds, "why they should not thrive in old England, I know not, save for want of industry and trial." It is now ascertained that they will prosper in this climate, as well as our native oak; and we hope they will spring up from these hints, that future generations may see them more frequently, for every age must increase the reverence due to these celebrated trees.

CHESNUT.—See *Pomarium Britannicum.*

CORNEL TREE, OR DOGWOOD.—CORNUS SANGUINEA; AND CORNELIAN CHERRY.—CORNUS MASCULA.

Natural order, Stellatæ. Caprifolia, Juss.
A genus of the Tetrandria Monogynia class.

——— " His cornel spear
Ulysses wav'd, to rouse the savage war."
Odyssey, book xix.

" Fix'd in the wound th' Italian cornel stood."
Æneis.

It is to the lines of these matchless poets that we are indebted for much curious information relating to the use the ancients made of the different trees and shrubs. Virgil further informs us,

" The war from stubborn myrtle shafts receives;
From cornels jav'lins; and the tougher yew
Receives the bending figure of a bow."
Georg. ii.

The Æneis informs us that the murder of the youthful Polydore was discovered by the shafts and lances with which he was slain

having taken root in his corpse, and sprung into their native myrtles and cornels:—

" When Heaven had overturn'd the Trojan state,
And Priam's throne, by too severe a fate;
When ruin'd Troy became the Grecian's prey,
And Ilium's lofty towers in ashes lay;"

Æneas and his followers land in Thrace, where they are about to offer a bull on Jove's imperial altar —

" Not far, a rising hillock stood in view:
Sharp myrtles on the sides, and cornels grew.
There, while I went to crop the silvan scenes,
And shade our altar with their leafy greens,
I pull'd a plant—with horror I relate
A prodigy so strange and full of fate—
The rooted fibres rose, and from the wound,
Black bloody drops distill'd upon the ground!
Mute and amaz'd, my hair with terror stood;
Fear shrunk my sinews, and congeal'd my blood."

* * * * * *

" A groan, as of a troubled ghost, renew'd
My fright, and then these dreadful words ensued:
' Why dost thou thus my bury'd body rend?
O! spare the corpse of thy unhappy friend!
Spare to pollute thy pious hands with blood;
The tears distil not from the wounded wood;
But every drop this living tree contains
Is kindred blood, and ran in Trojan veins.
O! fly from this unhospitable shore,
Warn'd by my fate—for I am Polydore!' "

Pausanias, a celebrated historian of the second century, tells us there was a festival

celebrated in honour of Apollo, at Lacedemonia, called *Cornus*, which was instituted to appease that god, because the Greeks had incurred the displeasure of Apollo, by cutting the cornel trees which grew in a consecrated thicket, at Mount Ida.

Sacred woods and consecrated groves were attached to most of the temples of the ancient heathens, and this superstition was preserved a long time after the fall of paganism. In ignorant ages these woods were the terror of the timid, the refuge of the crafty, and the grave of the credulous. In their dreadful ceremonies (for humanity forbids our calling them religious customs), human sacrifices were offered in their horrid worship. The ancient inhabitants of the north had priests who followed this infamous practice, until Christianity happily spread its soft beams over these unhappily deluded people.

Near the temple of Upsal, in Sweden, there was a wood of this description, called the Forest of Odin, which was generally full of the dead bodies of victims, which at certain seasons were taken down from the trees to be burnt in honour of *Thor*, or the sun.

Leonard Rubenus, a German, who became a priest in 1596, having received an order from his superiors to go to Dorpat, a city of

Livonia, found on his way the sacred wood of the Esthonians, where there was a large pine loaded with trophies. He was told that the inhabitants of the country adored this tree; that women newly delivered brought offerings there, and that the men refreshed its roots with beer. Rubenus wished to cut down this tree, to get rid of so ridiculous a superstition; but the Esthonians told him, that if he had the temerity to pass under it, both himself and his horse would be taken up in the air. However, Rubenus cured them of this superstition, without violence to himself or his horse; and we hope that the present mode of education will not only banish superstition, but also all those cruel and ignorant animosities which have, in different ages, so highly disgraced both the catholic and the protestant Christians.

But to return to the tree whose branches afforded the ancient butchers javelins, as it now furnishes the modern ones with skewers. The Latin name of *Cornus*, is after the Greek κρανεια; or from *cornu*, a horn; because the wood is of a hard and horny nature. The surname of *Sanguinea* was given to this shrub from the beautiful red colour of its young branches, which shine, during the winter months, as beautifully as conspicuously, when

planted between laurels or other evergreens; and although its small umbels make no very gay appearance by their greenish-white petals, which open in June, and often again in October, yet the variety of red, yellow, and umber tints which its foliage affords in the autumn, fully compensates for any want of splendour in its blossoms.

The English names of this shrub, are scarcely less numerous than the tints of its leaves. It is often called female cornel, to distinguish it from *cornus mascula*, and hound's berry-tree, hound's-tree, dog's berry-tree, (because, says Parkinson, the fruit is not even fit for the dogs); and, from hence, it has the name of dogwood. It is called prickwood, from its use in making skewers. Gerard tells us, "that in the north of England, it was known by the name of gaten-tree and gater-tree."

The *cornus sanguinea* abounds in most hedge-rows and copses, where the soil is of a calcareous nature. It sends out abundance of suckers, and as it branches out close to the ground, it frequently propagates itself by layers. The fruit may more properly be styled an umbilicate drupe, than a berry. It ripens in August, and is of a purple so dark,

as almost to approach to black. The pulp is soft and bitter; the stone is round and of a bony substance, divided into two cells, each of which contains a white kernel or seed. Our nurserymen have introduced seven different species of dogwood from America, which they often engraft on the common dogwood. The *cornus alba* is very similar to the common cornel shrub, excepting that the fruit is white. It is a common plant in all Siberia. The seeds were first sent by Professor Ammann, of Petersburg, to England; but it was first discovered by Gmelin, and afterwards was found by Messerschmidt, near Kamschatka.

"Our common dogwood," says Evelyn, "is like the cornel for compactness, and is made use of for cart timber and rustic instruments, for mill-cogs, spokes, bobins, for bone-lace, and the best of tooth-pickers and butchers' skewers. Being hard and even, it is fit also for the turner. In some countries abroad, they extract an oil from the berries for lamps, by boiling them in water and pressing them."

In placing this shrub in the plantation, it should be recollected, that it seldom exceeds from ten to fifteen feet in height, and that its leaves contrast well with any evergreens; whilst its crimson sprays are not less orna-

mental during the winter months, particularly when mixed with the common laurel.

The fruit of the *cornus sanguinea* is very bitter, styptic, and gives a pretty deep red colour to blue paper.

The cornelian cherry, *cornus mascula*, is now removed from the orchard to the shrubbery; but in this latter situation, it is at present so seldom seen, that many persons do not even know that this beautifully transparent fruit exists, which flourished in the earliest English gardens, graced the deserts of our forefathers, and furnished their dames with fruit for tarts, rob, and marmalade.

Tusser, who wrote in Queen Mary's time, calls them cornet plums. Gerard says, in 1596, "the male cornell-tree groweth in most places of Germanie without manuring; it groweth not wilde in England; but yet there be sundrie trees of them growing in the gardens of such as loue rare and dainty plants, whereof I haue a tree or two in my garden."

Lord Bacon frequently speaks of them amongst the fruits of his day, by the name of cornelians.

Pliny speaks of this fruit in a manner that induces us to think that he considered it as indigenous to Italy as well as Austria. He

describes this tree in the 40th chapter of his 16th book; and says, he cannot rank it amongst timber trees, as it does not arrive at any great size; but that the wood of this tree was nearly equal to iron for making pins and wedges to cleave wood. It was also used by the Romans, for making spokes to their wheels.

The growth of the cornel tree, *mascula*, is so slow, that it requires fifteen years to attain ten feet in height; from hence, its wood is very hard. In the south of France it is often used for props in the vineyards, and also to make hoops for wine casks. The finest trees of this kind which we have seen in England, are at Cowfold, in Sussex, on an estate belonging to John Wood, Esq. of Chestham. One of these trees is in the garden belonging to a farm called Walhurst, in the occupation of Mrs. Dowlan; the other is in a garden of a neighbouring farm occupied by Mr. West. These trees are the size of a moderate cherry or apple tree; and we conclude they are of a considerable age, as their appearance has not altered much since we have known them, which is upwards of thirty years. They are abundant and regular bearers.

The flowers appear before the leaves, and sometimes as early as the beginning of February. They grow on umbels, of from

fifteen to thirty flowers each, of a small size and yellowish colour, and therefore make no great show; but the fruit, which is a drupe that ripens in August, has a very fine effect, as it hangs like so many cornelian drops from the branches; and it is as transparent as the stone of that name, or as the jelly of red currants, and about the size and form of a small olive.

The stone is oblong, pointed at one end, and rather larger than a grain of wheat. The pulp, which forms what is vulgarly called the fruit, is less juicy than the cherry, but more so than the plum. Its flavour is peculiar; but to some persons this sweet and astringent taste is extremely agreeable. Formerly, it was preserved and sold in the shops as rob de cornis; it was also pickled in salt and water in its green state, as a substitute for olives; and we find, from Pliny, that the Romans had the same practice.

Dr. James says this fruit is cooling, drying, and astringent, strengthens the stomach, and is good in fevers; especially if attended with a diarrhœa. It gives as lively a red to blue paper as alum; which gives us room to think, that it contains a salt analagous to it. An electuary was formerly made of the strained pulp for a dysentery.

CYPRESS TREE.—CUPRESSUS OF PLINY, AND THE CYPARISSUS OF VIRGIL AND OVID.

Natural order, Coniferæ. A genus of the Monœcia Monadelphia class.

"I was exalted like a cedar in Libanus, and as a cypress-tree upon the mountains of Hermon."

Ecclesiasticus, xxiv. 13.

—— "Et toi, triste cyprès,
Fidèle ami des morts, protecteur de leur cendre,
Ta tige, chère au cœur mélancholique et tendre,
Laisse la joie au myrte et la gloire au laurier.
Tu n'es point l'arbre heureux de l'amant, du guerrier,
Je le sais; mais ton deuil compatit à nos peines."

THIS tree, which is the symbol of eternal sorrow in all the civilized countries of Europe, is also the funeral tree of the east, from the Persian Gulf to the Caspian Sea; and it is likewise dedicated to the dead from Mazenderán to Constantinople, as well as to the utmost bounds of China's fruitful shores.

If we look so far back as even to the destruction of Troy, we shall find

"In mournful pomp the matrons walk the round,
With baleful cypress and blue fillets crown'd,
With eyes dejected, and with hair unbound."

Æneis, Book iii.

Fable informs us, that this emblem of grief owes its name to Cyparissus, a beautiful youth, who was the favourite of Apollo —

" Whose hand adapts with equal skill, the strings
To bows with which he kills, and harps to which he sings."

Cyparissus having accidentally killed a favourite stag of Apollo's,

" Much was the beast by Cæa's youth caress'd,
But thou, sweet Cyparissus, lov'dst him best."

The youth could not be cured of his sorrow —

" Himself he would have slain through desp'rate grief.
What said not Phœbus, that might yield relief?
To cease his mourning he the boy desir'd,
Or mourn no more than such a loss requir'd.
But he incessant griev'd. At length address'd
To the superior powers a last request;
Praying, in expiation of his crime,
Thenceforth to mourn to all succeeding time.
And now, of blood exhausted he appears —
Drain'd by a torrent of continual tears.
The fleshy colour in his body fades,
And a green tincture all his limbs invades.
From his fair head, where curling locks late hung,
A horrid bush, with bristled branches sprung;
Which, stiff'ning by degrees its stem extends,
Till to the starry skies the spire ascends.
Apollo sad look'd on, and sighing cry'd,
Then be for ever what thy pray'r imply'd:
Bemoan'd by me, in others grief excite,
And still preside at ev'ry fun'ral rite."

OVID, Book X.

Claudian tells us, in his admirable poem of the Rape of Proserpine, that when Ceres decided to travel over the earth in search of her daughter, she hastened to Etna, to prepare the torch which was to light her on the road during the night; and that having rooted up two gigantic cypresses, the goddess threw them into the crater of that mount, which, being inflamed by the sulphur, augmented the fires of Etna; and from thence the ancients, we presume, dedicated this tree to Pluto and Proserpine. The Romans placed a branch of the cypress tree before their dwellings when any one died, which remained as long as the corpse was in the house; and which it then accompanied to the funeral pile, or the tomb.

Lucan, who wrote about the middle of the first century, informs us that the cypress was then only used at the funerals of persons of distinction. He says,

Et non plebeïos luctus testata Cupressus.

" And the cypress testifying no vulgar grief."

" The mournful cypress rises round,
Tap'ring from the burial ground." Lib. ii.

The Turks of the present day attend most religiously to the planting of the cypress tree at the tombs of their departed friends and re-

latives; and they are always careful to select the upright variety, as the spreading cypress would, in such situations, be the cause of great sorrow to them, from their belief that when the tree grows with a spiral point towards heaven, it indicates that the soul of their friend is ascended into the regions of bliss. The Armenians are not allowed to plant a cypress tree at the graves of their deceased friends, but they are permitted to plant any branching tree, as the apple, oak, or elm, &c.; which, from it's crooked branches, indicates, as the Mahommedans affirm, the impossibility of the ascension of Christian souls. When will reason ascend her universal throne!

Lady M. W. Montague mentions a cypress tree in a garden at Kujuk Checkmedji, that was converted to rather a singular use. "The house and garden now belong," says her Ladyship, "to a *hogia*, or schoolmaster, who teaches boys here. I asked him to show me his own apartment, and was surprised to see him point to a tall cypress tree in his garden, on the top of which was a place for a bed for himself, and a little lower one for his wife and two children, who slept there every night. I was so much diverted with the fancy," says Lady Mary, "that I resolved to examine his nest nearer; but going up fifty steps, I found I had still fifty to go up, and then I must climb from

branch to branch with some hazard of my neck. I thought it therefore the best way to come down again."

Cato wrote more on the cultivation of the cypress than on that of any other tree; and he calls it a Tarentine tree; but Pliny says, that was from its being first planted in that neighbourhood, and that the isle of Candia is its natural country; where, he says, when the ground is ploughed up, the young plants are sure to appear, and that in many parts of that island, the cypress trees spring up without culture; particularly on Mount Ida, on which they grow to the very point, although it is continually covered with snow. Hanway says, some of the mountains near Reshd, in Persia, are covered with cypress trees. Thus, like the cedar, its birth-place is a cold bleak mountain; and, like that majestic tree, it lives almost to eternity, and its timber seems nearly imperishable. Sir W. Ouseley tells us, in his travels, that "the beautiful and venerable cypress of Fassa has been the boast and ornament of that city for above a thousand years." Pliny speaks of a cypress that was planted when the foundation of Rome was laid, and which fell, he says, through careless neglect, on the last year of Nero's reign. The same author tells us, the famous statue of Vejovis, Jupiter, in the capitol, was

made of cypress wood; and that when he wrote it was perfectly sound, although it had been dedicated and consecrated to the temple since the second year of the foundation of Rome. Theophrastus, who calls this tree Κυπαρίττος, tells us, that the doors of the celebrated temple of Ephesus were formed of this durable wood; and every body knows that the doors of St. Peter's church, at Rome, were framed of cypress timber, which lasted from Constantine to Pope Eugenius IV.'s time, which was eleven hundred years, and were then sound and entire, when the pope took them down to change them for bronze gates. The Egyptians kept their mummies in chests of cypress wood; and Thucydides, a Greek historian, who wrote about 400 years before the birth of Christ, tells that the Athenians used to bury their heroes in coffins formed of this timber; and Aristocles, the celebrated Athenian philosopher, (who was called Plato, from the largeness of his shoulders), and who flourished about the same time with Thucydides, would have the laws and sacred rites inscribed on tablets of cypress wood in preference to brass.

The Babylonian history affirms, that the lasting bridge, which Semiramis caused to be built over the Euphrates, about 1960 before

the Christian era, was entirely formed of this timber; and some learned writers, who do not hesitate to go 389 years farther back, endeavour to prove, that the gopher mentioned in Scripture as the wood of which the ark was built, was no other than cypress, and which is not confuted by other learned authors; such as Isa, Vossius, and David Kinchi, who will have gopher to signify only resinous timber. Epiphanius, a bishop of Salamis, who died A.D. 403, tells us, (Hæres. lib. i.) some relics of the ark, *circa campos Sennaar*, lasted even to his days; and which was judged to have been of cypress. It is known, that at Crete this timber was employed in building the largest ships; and Virgil tells us, "that cypress provides for keels of ships that scour the watery plains." Aristobulus affirms, that the Assyrians made shipping of this timber; and so plentiful was this tree about those parts of Assyria, where the ark is conjectured to have been built, that those vast armadas which Alexander the Great caused to be equipped and sent out from Babylon, consisted only of cypress. — (Arrianus, Alex. lib. vii., and Strabo, lib. xvi.)

The ancients, who had great faith in balsamic scents, supposed therefore that the cypress tree improved the air by its transpir-

ation; and on which account, the eastern physicians sent all those who had pulmonic disorders to the Isle of Candia, where these trees abound; and we are assured, that the aromatic smell of this evergreen was found to be a specific for the lungs. This subject deserves minute investigation, and the serious opinions and consultations of those

> "Men who suppress their feelings, but who feel
> The painful symptoms they delight to heal."

It is clearly ascertained, that trees correct a putrid bad air. It should, therefore, be our study to find out those that do it most powerfully; and having ourselves so often been revived and refreshed by the natural perfumes of the garden and fields, we deem it worthy the labours of medical students, to learn how far aromatic and balsamic scents may be good for those who are troubled with weak lungs. We have no hesitation in saying, it must be beneficial to hypochondriacs. In making these observations, we hope the learned Esculapians, whom we venerate as much as we despise those

> "Who to contention as to trade are led,
> To whom dispute and strife are bliss and bread,"

will not deem us a disciple of those advertising

quacks, who have the impudence to tell us, they have

" Men snatched from graves, as they were dropping in,
Their lungs cough'd up, their bones pierc'd through their skin:
Their liver all one schirrus, and the frame
Poison'd with evils which they dare not name;
Men who spent all upon physician's fees,
Who never slept, nor had a moment's ease,
Are now as roaches sound, and all as brisk as bees."

" How strange to add, in this nefarious trade,
That men of parts are dupes by dunces made!"

CRABBE.

By whom the cypress tree was first introduced to England, and at what exact period, we are not able to learn; but it is probable, that we are indebted for this celebrated tree to some pious abbess, or holy fathers of Sion Monastery, near Brentford, which is now become Northumberland's ducal palace; as Dr. Turner tells us, in his Herbal of 1568, " it groweth right plenteously in the gardine of Sion." Gerard notices, in 1597, that " it groweth likewise in diuers places of Englande, where it hath beene planted, as at Sion, a place near London, sometime a house of nunnes; it groweth also at Greenwich, and at other places; and likewise at Hampsteed, in the garden of Master Waide, one of the clarkes of hir maiesties privy-counsell."

Evelyn says, in 1664, "the cypress tree was, but within a few years past, reputed so tender and nice a plant, that it was cultivated with the greatest care, and to be found only amongst the curious; whereas we see it now in every garden, rising to as goodly a bulk and stature as most which you shall find even in Italy itself. For such I remember to have once seen in his late Majesty's gardens at Theobalds, before that princely seat was demolished." The author of the Sylva strongly recommends the planting of this tree in England; and of its hardiness he says, "The March and April winds (in the years 1663 and 1665), accompanied with cruel frosts and cold blasts, for the space of more than two months, night and day, did not, amongst near a thousand cypresses growing in my garden, kill above three or four, which, for being very late cut to the quick, (that is, the latter end of October), were raw of their wounds, took cold, and gangreened." From this and other recommendations of Evelyn, we presume it became fashionable to cultivate the cypress, for in 1706, when Loudon and Wise published "The Retired Gardener," they say, "cypress was formerly more in fashion than 'tis now; for we see in some places whole alleys of it; but these trees being apt to take but one sort of figure,

which is that of a pyramid, and the yew tree and pieca being more proper for the variety of forms of which they are susceptible, to adorn gardens, cypress has lately been neglected, and the other two trees been more planted." Thus it is evident that the cypress was driven out of the garden by the shears, whose business it was to disfigure nature, by transforming evergreens into urns, sugar-loaves, extinguishers, and a thousand other whimsical devices, as suited the taste of the owner, or the ability of their gardeners, who have not been improperly called evergreen tailors. But the cypress may now safely return to its station in our plantations, since the shears have left the grove, and are now as busily employed in disfiguring the human shape, as they were formerly in mutilating vegetable beauties.

There is no part of ornamental planting more difficult than the distribution of evergreen trees, which are either the most permanent beauties of the grove, or the most gloomy features, accordingly as they are dispersed. A plantation composed entirely of trees that are not deciduous, has an aspect so sombre, that the name of nevergreen may be more properly applied to them than that of evergreen; yet they cheer our winter scenes most beautifully when happily blended with

those deciduous trees, whose colour and character assimilate best with them. But we are not admirers of that regularity and uniformity so often offensive to the eye in large plantations, where there is no deviation from the fir and the larch, unless where death has made a gap, when you are treated with a larch and a fir through hill and dale to the end of the plantation.

The cypress seems admirably adapted to ornament those lawns which surround villas or lodges built in the Grecian style, and perhaps we have no tree that accords so well with stone or stuccoed edifices as the cypress; and even the temples of marble lose half their effect if surrounded by other buildings instead of being relieved by the foliage of trees. At the present time, the burial hill of Père-la-chaise, near Paris, forms a most interesting picture, as the numerous and various formed monuments rise above the young arbores vitæ and cypresses, like a city of marble emerging from a forest, and from which, a friend observes, we may form a faint picture of the beautiful appearance of Constantinople from the Bosphorus; the hills on which that city stands being intermixed with white buildings and green foliage, which forms a spectacle not equalled in any other part of Europe.

We have two varieties of the common cypress, *sempervirens*, the upright and the spreading, which the ancients distinguished as male and female trees; but the botanist will know by the class in which these trees are placed, that they are androgynous plants, viz. having male and female flowers on the same root. It appears that the ancients did not consider the seed of a tree to be a fruit, unless it was eatable; for Phocion, who was so celebrated in Athens for his private and public virtues, remarked to a young man who spoke with more vanity than good sense, "Young man, thy discourse resembles the cypress; it is large and lofty, and bears no fruit." What would this Athenian, whose virtues were as incorruptible as the cypress itself, say to some of our modern speeches and publications?

When we plant the cypress in the shrubbery, it should be correctly ascertained if it is the spiral or the spreading variety; for the former requires but a small space, and should be placed behind those flowering shrubs whose extending branches require such an addition: whilst the spreading cypress may wave its mournful branches over the daisy-pied lawn, or form a foreground to the pointed poplar. But it requires considerable ingenuity to place the cypress happily in our plantations; for in most

situations its dark and slender head adds a gloom rather than cheerfulness to the scene, particularly in autumnal evenings; when either the sun leaves its last streak, or the rising moon sends a silvery stream of light down the dark foliage, which gives additional sombre to the shade, and a spectre-like appearance to the imagination of the gloomy mind.

Mr. Miller says, "the spreading cypress is by far the largest growing tree, and is the most common timber in some parts of the Levant. This, if planted upon a warm, sandy, gravelly soil, will prosper wonderfully; and though the plants of this sort are not so finely shaped as those of the first, yet they greatly recompense for that defect by their vigorous growth and strength, in resisting all weathers. This tree is very proper to intermix with evergreens of a second size next to pines and firs, to form clumps, in which class it will keep pace with the trees of the same line, and be very handsome. Besides, the wood of this tree is very valuable, when grown to a size fit for planks, which I am convinced it will do in as short a space as oaks; therefore, why should not this be cultivated for that purpose, since there are many places in England where the soil is of a sandy or gravelly nature, and seldom produces any thing worthy culti-

vating? Now, in such places, these trees will thrive wonderfully, and greatly add to the pleasure of the owner while growing, and afterwards render as much profit to his successors, as perhaps the best plantation of oaks."

Pliny tells us, that in Italy it was considered amongst their most profitable plantations, and was generally cut for poles once in every thirteen years, and that this fall was called *dos filiæ*, because the profit was reckoned a sufficient marriage portion for a daughter.

This timber is reckoned amongst the sonorous woods; it is therefore used for harps, violins, and other musical instruments, and it is said that no wood is better calculated to resist the ravages of the worm, &c.

The deciduous cypress tree, *cupressus disticha*, is a native of North America, and it appears to have been introduced to this country by Mr. John Tradescant, of South Lambeth, where it was planted prior to 1640. We have now two varieties of this species of cypress.

Cupressus lusitanica, commonly called the cedar of Goa, from whence it was first brought to Portugal, and is therefore named the Portugal cypress. We learn from Mr. Ray's let-

ters, that this species of cypress was cultivated in England as early as 1683, but it is not considered so hardy as the common cypress, and is therefore less planted; formerly there were some of these trees growing in the Bishop of London's garden, at Fulham, and there was a fine tree of this species in the gardens of the Duke of Richmond, at Goodwood, near Chichester, which was killed by the frost in 1740.

The arbor vitæ leaved cypress, or white cedar, *cupressus thyoides*, is a native of North America, and Peter Collinson, Esq. had the honour of giving it British soil in 1736. This species grows naturally in China and Cochin-China; it loves a strong moist soil, and abounds in the swamps of New Jersey, and some parts of Pennsylvania and New York.

> "The May flower and the eglantine
> May shade a brow less sad than mine:
> But, lady, weave no wreath for me;
> Or weave it of the cypress tree."

However applicable these lines of the Scottish bard may be to us, we would not willingly sow the seeds of melancholy in any person's pleasure grounds, yet we must state that all the different species of cypresses are raised from seeds, which, Miller tells us, should be sown early in the spring on a bed of warm,

dry, sandy earth, which must be levelled very smooth, and the seeds scattered thereon pretty thick, sifting the same light earth over them half an inch thick. If the seeds are sown upon a moderate hot bed, and the beds covered with mats, they will come up much sooner, and with greater certainty, than when they are sown in the cold ground.

Le Bon Jardinier, for 1822, recommends the French nurseryman to sow the seeds in pots, which are plunged into hot-beds, as these pots can be removed into the orangery for protection during the winter. Mr. Boutcher recommends the same practice; but we should most decidedly prefer planting out not only the cypress, but all other evergreens, that have been reared in the hardiest manner that their cultivation admits of, as they are intended to decorate our walks and views in the most inclement season of the year.

The green cones of the cypress, pounded and mixed with leaven, were one of the external remedies which the ancient physicians used for scrofulous complaints. They also recommended the leaves to be pounded and applied to the wound made by the bite of serpents.

ELDER.—See *Pomarium Britannicum*.

ELM.—ULMUS.

Natural order, Scabridæ, Amentaceæ, Juss. *A genus of the Pentandria Digynia class.*

Ancient fable tells us, that the vegetable kingdom owes the birth of this tree to the united melody of the lyre and the voice of Orpheus, whose harmonious complaints for the loss of Euridice gained him admittance to the dominions of Pluto,

> " *Where,* while the bard melodiously complains,
> And to his lyre accords his vocal strains,
> The very bloodless shades attention keep,
> And, silent, seem compassionate to weep.
> Ev'n Tantalus his flood unthirsty views,
> Nor flies the stream, nor he the stream pursues;
> Ixion's wond'ring wheel its whirl suspends,
> And the voracious vulture, charm'd, attends.
> No more the Belides their toil bemoan,
> And Sisiphus, reclin'd, sits list'ning on his stone."
>
> Ovid.

On his return to earth, we are told by the poet that he retired to a verdant hill, but which was destitute of shade, where he no sooner breathed his plaintive airs or struck his

sweet-resounding strings, than the elm and other trees sprang up to give him shade.

"Themselves transplanting, all around they grow,
And various shades their various kinds bestow."

The elm as well as the cypress was a funeral tree with the ancients of the eastern nations, because they considered them as fruitless trees, their seeds being disregarded by them. Homer tells us in the Iliad, that Achilles raised a monument to Ætion, the father of Andromache, around which elms were planted.

"Stern as he was, he yet rever'd the dead;
His radiant arms preserv'd from hostile spoil,
And laid him decent on the fun'ral pile;
Then rais'd a mountain where his bones were burn'd:
The mountain nymphs the rural tomb adorn'd,
Jove's sylvan daughters bade their elms bestow
A barren shade, and in his honour grow."

POPE.

The elm is also celebrated in the Iliad for having formed a hasty bridge, over which Achilles escaped the Xanthus, when that river, by its overflowing, had put him in danger of being carried away.*

The Greeks called this tree Πτελεα, *Ptelea*, therefore, from whence the Latins derived

* See the Iliad, book xxi. This passage, descriptive of the wrath and fury of a river god, is perhaps one of the finest in the whole poem.

their name of *Ulmus*, is uncertain; but from it the English name of *Elm* is evidently taken, as well as that of the other European languages.

The imperial city of Ulm, in Germany, owes its name to the great quantity of elm trees with which its vicinity abounds; and the Doomsday book mentions nearly forty places in this country which also took their names from this tree, and from hence Dr. Hunter conjectures that the elm is a native of England. But in this opinion we do not coincide with the learned Doctor; for the admiting that this tree was known in England as early as the Saxon times, does not prove it indigenous to the soil, so strongly as it is confuted by nature, which seldom permits it to propagate its species in this country, according to her common rules; whilst, in other countries, where the seed falls, young plants spring up as commonly as the oaks of Britain. However plentifully a plant of any description may be found in a country, we can never reconcile our minds to consider it a native of the soil where it does not spring freely from seed. We cannot, therefore, agree with those who affirm the elm to be a native plant, without contradicting the rules of nature, in considering its parts of fructification and its fruit

as unnecessary organs of the tree; and in the works of the wise Creator nothing is found wanting or superfluous, but all is beautiful union and harmony.

We have already shown how careful the Romans were in conveying the cherry tree to this island, almost as soon as they had procured it in Italy; and it occupied their earliest attention to enrich their own land by such vegetable productions as the countries which they visited or conquered afforded. Nor did they seem more backward in beautifying the nations subject to them in the same proportion, and although there was a superabundance of timber in this country at the time of their invasion, we know it consisted principally of oak, ash, beech, and birch, with some minor trees; and every reader knows how religiously the Romans adhered to the superstitious customs of their ancestors, and we all know likewise how devoted most people are to the customs and habits of their country. It would not, therefore, be surprising or unlikely that they should wish to plant the elm on the graves of the heroes they lost in Britain. In all ages it has been found difficult to change the habits of the lower classes of men, and the Romans adopted particular trees for particular purposes; and we learn from Virgil

that their husbandmen bent the young elms whilst growing into the proper shape, for their *buris*, or plough-tail.

Continuò in silvis magna vi flexa domatur
In burim, et curvi formam accipit ulmus aratri.
Geor. i. 170.

"Young elms with early force in copses bow,
Fit for the figure of the crooked plough."
DRYDEN.

But, above all, they considered the elm as the necessary support and friend of the vine; and their belief that a sympathy existed between plants was so great, that they seldom planted one without the other. The gravest of the Latin authors do not hesitate to style the elm the husband to the vine; and Pliny observes, that that elm is a poor spouse which does not support three wives. This mode of marrying the vine to the elm, gave rise to the elegant insinuation of Vertumnus to Pomona, whose story may be found in Ovid.

"'If that fair elm,' he cried, 'alone should stand,
No grapes would glow with gold, and tempt the hand:
Or, if that vine without her elm should grow,
'Twould creep a poor neglected shrub below.'"

Tacitus states, that vineyards were planted by the Romans in Britain. They would, there-

fore, naturally introduce the elm at the same time; which, being a tree of such easy propagation, both from suckers and cuttings, a single tree introduced by them, would be sufficient to stock the whole island in a much shorter space than the time they had possession of this country.

The learned author of the "Sylva" was of opinion, that the elm was not indigenous to England. "Some affirm," says Evelyn, "that it was first brought out of Lombardy; and I have frequently doubted whether it be a pure indigene or translatitious; and not only because I have hardly ever known any considerable woods of them, but almost continually in tufts, hedge-rows, and mounds; and that Shropshire, and several other counties, and rarely any beyond Stamford to Durham, have any growing in many miles together." Aubery informed Mr. Ray, that the elm was not to be found north of Grantham or Stamford.

At the present time, when ages have so happily blended exotic and native beauties in our woods, the elm is never seen in those forests that keep their original character. It seems to have followed cultivation and enclosure, and is principally to be found in the neighbourhood where the town has been

reared; or it marks the spot where the village once stood; and the rapid manner in which this tree propagates itself in hedgerows and on banks, by suckers from its far extending roots, will easily account for the quantity now found in such situations. It must have been a happy exchange for Britannia, when she banished the wolf from her shores, and received the elm into the bosom of her woods. Our neighbouring shores are not yet entirely free from these plunderers of the fold. It was formerly the custom in France for the hunters to suspend the skins of these animals on their church-doors; but in later times, an elm was planted in their country churchyards, on which these trophies were hung; probably, with the idea, that they would deter these ravenous animals from tearing the dead bodies out of their graves, which was no unfrequent occurrence, when hunger drove them from the mountains or the forests. Long after these kinds of offerings ceased to be made, the custom of planting elms in front of village churches was preserved; and it is this tree, which still graces their cities and towns in their justly-boasted *boulevards*, under the shade of which patient industry throws the thread, and places the pin so accurately on the cushion, warbling her native airs under

this verdant roof, as happily as the wealthy dame, who, bedecked by the art of the humble lace-maker, can sing or sigh under the gayest dome of the proudest saloon.

English towns are strikingly deficient in these agreeable avenues, whose shade renders the summer promenade so agreeable, and gives such cheerfulness to the entrance of towns; for there can be no sight more pleasing to the traveller, than that of beholding the humble stalls of the little fruit-merchants, intermixed and overlooked by the knitting grandmother or netting grandfather, with here and there a seat occupied by the wounded soldier; nor is the fume of the sailor's pipe so offensive in this situation, as at the chequered door of the narrow street.

Spain owes her vistas, which are the pride of Aranjuez, Casel del Campo, Madrid, and other royal demesnes, to the union of its Philip with Mary of England; as before that period elms were not known in Spain, Philip the Second having caused them to be taken from England, and planted in his native land. The elm is an aboriginal of Barbary, as well as the south and south-east parts of Europe. Linnæus says, it is rarely to be found above Helsing and Finland.

The elms of England are scarcely less re-

marked for their age, bulk, and beauty, than the British oaks, which form alike the world's just wonder, the guard of friends, and the scourge of foes. Mr. John Ray, the botanist, mentions an elm which was felled in Sir Walter Bagot's park, in Staffordshire, that measured 120 feet in length, and was at the stool seventeen feet in diameter. When sold, its head alone produced forty-eight waggon-loads of wood to burn, and its trunk, besides sixteen blocks, furnished eight thousand six hundred and sixty feet of planks; its whole mass was valued at ninety-seven tons.

Fœcundæ frondibus ulmi. VIRGIL.

Fruitful in leaves the elm.

This quality in the elm, which ensures a constant shade during the summer months, has secured it a situation in most of the public, as well as the royal, gardens of Europe. Henry the Fourth of France planted an elm in the Luxembourg gardens of Paris, which stood until the late revolution in that country levelled both tree and monarch to the dust.

"Nor could old age itself their pity reach,
No reverence to hoary barks they knew."

Queen Elizabeth, who was contemporary with *Henri Quatre*, it is said, planted an elm

with her own hands at Chelsea, where she spent a part of her early days in a palace belonging to her father. This elm stood at the upper end of Church-lane, near the place where the turnpike now is, and was a boundary of the parish on the north side. It was felled, to the great regret of the neighbourhood, on the eleventh of November, 1745, and sold for a guinea, by the lord of the manor, who was no other than the worthy Sir Hans Sloane, which induces us to think that the tree must have become dangerous, or a nuisance to the road. It was 13 feet in circumference at bottom, and 6 feet 6 inches at the height of 44 feet: before the hard frost of 1739-40, which injured its top, it measured 110 feet from the ground. It was in the year 1600 that Sir Francis Bacon planted Gray's-inn walks with elms, eight of which were standing in the middle of the last century.

Under the shade of these trees many a virtuous and worthy man studied for the good of his country; for

> "Law was design'd to keep a state in peace;
> To punish robbery, that wrong might cease;
> To be impregnable; a constant fort,
> To which the weak and injur'd might resort:
> But *now* perverted minds its force employ,
> Not to protect mankind, but to annoy;

"And long as ammunition can be found,
Its lightning flashes, and its thunders sound."
CRABBE.

In modern times

"The trader, farmer, butcher, taylor, all
Bring up a son, *Professionall*;
And then deal out their numerous writs,
To keep their cubs, whom this trade fits.
"Perhaps their numbers may in time confound
Their arts — as scorpions give themselves the wound."

The walk of elms at the north-side of St. James's Park, which once was the rendezvous where courtly fashion and follies were displayed, and where now indigence and vice have fixed their station, was planted in the reign of Charles the Second; some few of the original trees were standing at the beginning of the present century. If it be true that trees have eyes and ears, how much must these venerable elms have overlooked and heard, and how fortunate will be the bookseller who has the publication of these secrets, which no doubt will shew—

"How creatures, nature meant should clean our streets,
Have purchased lands and mansions, parks and seats."

Martyn tells us, "Two elms at St. John's College, Oxford, were sizeable trees in the reign of Queen Mary; and at Fulham, there

are, or were, some elms planted in the time of King Edward the Sixth; and one at Richmond, said to be planted by a courtier of King Henry VII. whilst that king kept his court there."

Madame de Genlis speaks of an elm of great size in this country; in the hollow trunk of which she says a poor woman gave birth to an infant, and where she afterwards resided for a long time. This tree, which is a great curiosity, is still standing in the village of Crawley; but as the parish is not willing to be burthened with all the young elms that might have been brought forth from the trunk of this singular tree, the lord of the manor has very wisely put up a door to the entrance of this lying-in hospital, and which is kept locked, except upon particular occasions, when the neighbours meet to enjoy their pipe, and tell old tales in the cavity of this elm, that is capable of containing a party of more than a dozen. The interior of this tree is paved with bricks, and in other respects made comfortable for those that it embarks.

In our plantations we find but few trees that excel the elm in height or beauty, particularly when it stands singly and meets a favourable soil. Its foliage then forms grand masses of light and shade in a manner so pe-

culiar to itself, that we might almost fancy it a clump of green clouds, which sometimes obscure, and sometimes admit the light, showing branches distinct from the leafy clouds, which again support other masses of foliage, that forms a group of harmony not excelled in any other majestic tree.

"Thus when we view a well-proportioned dome,
(The world's just wonder, and even thine, O Rome!)
No single parts unequally surprise,
All comes united to th' admiring eyes:
No monstrous height, or breadth, or length appear;
The whole at once is bold and regular."

POPE.

A few detached elms before clumps of pines or firs, add greatly to the beauty of the plantation, as the extreme softness of the colour of the elm leaves in the spring, and the delicate manner in which they seem sprinkled over the branches, have a delightful effect.

"No numbers can the varying robe express,
While each new day presents a different dress."

The autumn changes the full green foliage of the elm to a yellow or ochre colour, which enlivens the dark tints of the fir, scarce less agreeably than its juvenile shades. This tree varies exceedingly in the colour of its foliage, as well as in the size of its leaves, by the least change of soil. Thus we often see two neigh-

bouring elms, whose roots have run into different strata, forming almost a different variety of this tree.

Linnæus considered all the European elms as making only one species, whilst Ray and Goodyer describe four; but modern botanists distinguish only two species, and consider the other kinds as varieties of these. The common elm, *ulmus campestris*, gives out its flowers generally about the end of March, which are monopetalous, and bell-shaped, closely thrust together on the twigs or branches. They make so little show, that they would scarcely be perceptible were they not to make their appearance before the leaves come out. This species of elm does not flower until it has acquired considerable size and height. The seeds, which are not much unlike the garden arach seed in size and form, generally fall about the time the leaves come out, and few of them hang to ripen. The leaves are what botanists denominate doubly serrate, that is, with small teeth upon each of the large ones, like some descriptions of saws. The elm leaf is rough and harsh on both sides, and the leaf is remarkable for having the principal nerve not quite in the middle; therefore the branching nerves are longer on one side than the other.

The broad-leaved elm, Wich elm, or Wych

hazel, *ulmus montana*, suspends its flowers on longer peduncles, and more loosely spread out than those of the foregoing elm; and it likewise blossoms when younger than the common sort. The trunk of this kind of elm soon divides into long, wide-spreading, winged branches, but it seldom rises so high as the common elm. This kind is hardy enough to climb the steeps, and flourish in the remotest Highlands of Scotland.

"The Wich elm," says Mr. Gilpin, in his Forest Scenery, "is perhaps generally more picturesque than the common sort, as it hangs more negligently; though, at the same time, with this negligence, it loses in a good degree that happy surface for catching masses of light, which we admire in the common elm."

The Dutch elm, *ulmus suberosa*. This variety was brought from Holland at the beginning of King William's reign. The leaves of this elm are large, but the timber is of a very inferior quality to our common elm.

Of the American elms cultivated in this country, the Hortus Kewensis notices three varieties; the first of which was introduced or planted by Mr. James Gordon, in 1752, who also cultivated the hornbeam-leaved elm; in 1760, which is also a native of North America, as well as the drooping elm, which takes

its name from the pendant position of its branches, and is also distinguished by its smooth oblong leaves.

Columella tells us, that the Romans fed their cattle with the leaves of the elm; for which purpose, Evelyn says, they are not to be despised; for being suffered to dry in the sun, on the branches, and the spray stripped off about the end of August, these he directs to be placed in a dry barn, and says, when hay and fodder is dear, they are of great service, and that the cattle will eat them in preference to oats, and thrive exceedingly well with them. But since the introduction of clover, and other exotic grasses and plants so abundantly into our fields, the trees are but rarely robbed of their verdure to feed our cattle: yet we are surprised not to see the fallen leaves collected in the autumn, since every gardener knows that no manure is superior to decayed leaves.

We learn from the plays of M. Accius Plautus, that elm twigs were anciently used as instruments of castigation; for this comic poet speaks of a rogue who had been chastised so often, that he had wasted all the elms in the country, in rods and cudgels.

Elm timber is in great esteem for pipes that are constantly underground; and it is in

calculable what a quantity of these trees were swallowed by the numberless streets of our monstrous capital before iron pipes were placed in its stomach; and which, together with substituting that metal instead of elm for our last habitations, must be the means of making elm timber more plentiful for other purposes.

Captain Woodroofe's Journal informs us, that the greater part of the Persian vessels are built of elm timber, which abounds in the province of Peribazar.

Evelyn says in his Sylva, "Elm timber is of singular use; especially where it may lie continually dry, or wet, in extremes; therefore, proper for water-works, mills, the ladles and soles of the wheels, pipes, pumps, aqueducts, pales, ship-planks beneath the water-line, &c. &c. A second-rate charcoal is made from this wood, and rails and gates of elm, thin sawed, are not so apt to rive as oak."

It has scarcely any superior for kirbs of coppers, feather edge, and weather boards; but it does not without difficulty admit the nail, without boring. His Grace the Duke of Devonshire planted 54,143 young elms on his estates between the years 1816 and 1819.

It was much more common formerly than at present in the southern counties of England, for weather boarding the sides of barns,

stables, and even dwelling-houses for the farmers; but many of these were exchanged for buildings of brick and stone, during the long war, which dazzled all eyes with a deceptive prosperity, whilst it ate away the substance of the country like a polypus in the flesh.

Medical writers have not been sparing of their commendations of the virtues of the elm, every part of which, from the root to the leaf, was esteemed a sovereign remedy for some complaint; but our space will not allow us to publish all the secrets of Theophrastus, Dioscorides, Galen, Pliny, Matthiolus, Bauhine, Ray, and a long list of other writers, who have recorded the cures performed by means of the elm. We fear that a greater number of their patients were boxed up in the planks of this tree, than were cured by its bark.

The elm leaves are often found with blisters on them, occasioned by the pricking of insects, and include a viscous juice, called elm water, which we should not have mentioned as being good for recent wounds and bruises, but we find the fair sex of former days used it to wound mankind, as an old writer assures us that it was with this wash that they "brightened the skin of their faces, and made their countenances so amiable."

All the varieties of the elm may be raised

from seeds, or propagated by layers or suckers taken from the roots of the old trees. We have lately seen elms of a considerable size transplanted, but they seldom make much new wood; and younger trees soon produce a better shade, and outrun the older plants; particularly if little trenches be dug near the roots to hold the rain water, that will greatly facilitate their growing in dry summers, and retain their verdure much longer. We observed this practice and its advantages in many new-formed boulevards and plantations of elms in the vicinity of Paris, where this tree is not less a favorite than in the environs of London, as the following beautiful lines of Gresset will shew: —

Feuillage antique et vénérable,
Temple des bergers de ces lieux,
Orme heureux, monument durable
De la pauvreté respectable,
Et des amours de leurs aïeux;
O toi! qui depuis la durée
De trente lustres révolus,
Couvres de ton ombre sacrée
Leurs danses, leurs jeux ingénus;
Sur ces bords, depuis ta jeunesse
Jusqu'à cette verte vieillesse,
Vis-tu jamais changer leurs mœurs,
Et leur félicité première
Fuir devant la fausse lumière,
De mille brillantes erreurs?
Non. Chez cette race fidèle,

Tu vois encor ce pur flambeau
De l'innocence naturelle,
Que tu voyois briller chez elle,
Lorsque tu n'étois qu'arbrisseau.
Et pour bien peindre la mémoire
De ces mortels qui t'ont planté,
Tu nous offres pour leur histoire,
Les mœurs de leur postérité.
Triomphe, règne sur les âges,
Echappe toujours aux ravages
D'Eole, du fer et des ans ;
Fleuris jusqu'au dernier printemps,
Et dure autant que ces rivages.
Au chêne, au cèdre fastueux,
Laisse les tristes avantages
D'orner des palais somptueux ;
Les lambris couvrent de faux sages,
Tes rameaux couvrent des heureux.

FIR-TREE.—PINUS.

Natural order, Coniferæ. A genus of the Monœcia Monadelphia class.

"Yon verdant pines, that 'midst the winter's smile,
Offspring of Scotia or Virginia's soil,
The world's extremes within their branches join'd,
To either hemisphere convey thy mind."

DELILLE.

——— "Towering firs in conic forms arise,
And with a pointed spear divide the skies."

PRIOR.

IT is not only in the countries of the north, but also on the summits of eastern mountains, that the fir and the pine-tree rear their heads without the aid of man. We have already noticed, that the forests of Lebanon were composed of firs as well as cedars. "I will do," said Hiram to Solomon, "all thy desire, concerning timber of cedar and timber of fir."

The allwise Providence, who scattered the palms over the torrid zone, giving the cocoa-tree to the sea-shore, and the date to desert

rocks and sands, has with the same wisdom allotted the fir and the pine their dominion on those bleak and elevated mountains, which attract the snows to their summits, in order that the valleys may be refreshed by their descending streams.

Every part of these trees displays infinite wisdom in their formation, which is so peculiarly adapted to their native mountains. The resinous juices, with which their trunks and branches abound, defy the rigour of the frost to congeal the sap, whilst the filiform nature of the leaves of these evergreen trees are not less happily adapted for resistance to the impetuosity of the winds, that beat with such violence on elevated situations. As these trees were designed by nature for perpetual winter, their foliage possesses the farther advantage of reverberating the heat, like the hair of animals.

The Swedish naturalists have observed that the fattest pines are to be found on the dryest and most sandy regions of Norway; and Mathiola, in his useful commentary on Dioscorides, informs us that there is no substance more proper than the charcoal of those trees for prompt melting the iron minerals, in the vicinity of which they peculiarly thrive. The closeness of their foliage shelters the

mountaineer from the snow, whilst their branches furnish him with fuel and torches.

The fruit or seed of these trees is so wonderfully protected by the formation of their cones, against the inclemency of the weather, that man evidently first borrowed from them the idea of placing shingles, tiles, and slates to the roofs of his dwellings.

From the class *Monœcia*, in which these trees are placed, the botanist will know that they produce male and female flowers separately, but on the same tree. The male flowers are so productive of farina, that it has sometimes been carried away by the winds, in such quantities, as to alarm the ignorant with the notion of its raining brimstone. Clouds of this yellow dust may often be seen hovering around these trees in the spring, when the stigmas are ready to receive this fructifying powder.

The ancient Persians paid great attention to the natural history of plants, and often used them in allegory, both in writing and speaking. Herodotus relates that Darius sent word to the Greeks of Ionia, who were laying waste the country, that if they did not give over their depredations, he would treat them like pines. The Greeks, who by this time had become infected with wit, and had

proportionably began to lose sight of nature, did not comprehend the meaning of this; but, upon enquiry, they discovered that Darius meant they should understand it to be his resolution utterly to exterminate them; for the pine-tree once cut down shoots out again no more.

It is scarcely possible to behold the dark towering pine and fir, without having our thoughts carried back to very early ages, and also our reflections; for these trees remind us of from what small beginnings great events often take birth.

These trees were dedicated to Diana, the immaculate virgin, who was supposed to preside over hunting. She was represented by the moon, because the light of the moon was propitious to huntsmen, for spreading their nets and other toils to entrap the game. The sports of the field were thought to be unfavourable to Venus, and were therefore more sacred to Diana. In the forest, the pine-tree was naturally made the rendezvous for the followers of the chase. The huntsman then suspended the head of a wolf on the branches of the pine or fir, to secure the protection of the chaste goddess. In time, the whole skin was displayed on it; and as in that age, like the present time, there were

persons ready to turn this superstition to some account, they built a chapel for this goddess, where was offered not only a wolf's skin, but whole carcasses of sheep likewise, as a security to the rest of the flock from the jaws of the wolf. As offerings multiplied, the attendance on the chapel increased; the huntsmen attracted pilgrims to the altar of pines, and the pilgrims allured dealers of necessaries to the spot. Thus, a town sprang up around the chapel, naturally filled with crafty and credulous persons. At length, oracles were announced and victories predicted; for which, generals and kings sent magnificent presents, until one of the chapels became a temple of such vast size and magnificence, as to be deemed one of the seven wonders of the world. It was this temple which is mentioned in the Acts of the Apostles, by selling silver models of which, the silversmiths of Ephesus made such great profit; and which they were in danger of losing by the introduction of Christianity. They, therefore, excited a furious tumult against its first preachers, whose principles were too pure, and full of charity and humanity, to be at first understood by the heathens; whose priests, no doubt, knew that fear has greater influence over the human mind, in general,

than confidence. Thus, at Tauris, the worship of Diana, was converted into one of terror, by having human sacrifices offered up to her; thus, transforming, what was in simple times intended to benefit mankind, into a curse, by the craft of those who perverted simple prayers to the profit of themselves, a temple and a city, where imposts were not only levied to support the priests, but all strangers landing there, or driven on their shores by storms, were cruelly immolated.

Garlands of pine leaves were awarded to the victors in the combats and sacred games of the Isthmia, which were celebrated by the Greeks every fifth year, and observed and held so sacred and inviolable, that even a public calamity could not prevent the celebration. These festivals received their name from the isthmus of Corinth, where they were observed as early as 1326 years before the Christian era; and when Corinth was destroyed by Mummius*, the Roman general, the games were observed with the usual solemnity, and the Sicyonians were entrusted

* Mummius, when he sent the precious statues and exquisite paintings of the Grecian artists to Rome from Corinth, threatened the masters of the vessels which conveyed them, that if their cargoes were injured or destroyed they should furnish new articles at their own expense.

with the superintendence, which had been before one of the privileges of the ruined Corinthians.

The fir was also dedicated to Pan as the god of huntsmen; and from his supposed residence being in those woods that are situated on rugged mountains, where the pine and fir-tree love to dwell.

The fir-tree was also sacred to Cybele, the wife of Saturn; hence Atys is generally represented as being supported by a fir-tree. The cones of the fir-tree were employed in the mysteries of Cybele, where even the priests were the first to indulge in the unbounded licentiousness and obscenities which prevailed in this festival.

The cones of the fir-tree were also offered up to Bacchus, and were likewise to be seen on the altars of Æsculapius.

Most of the temples of antiquity had their sacred groves or forests attached to them, where those abominable rites were often celebrated with the most horrible indecencies and terrible sacrifices. Cinnis, or Cercyon, was surnamed the bender of pines, because he tied his victims to the tops of two pines, which he bent down, and which, when he suffered them to rise again, tore the unfortunate wretch to pieces.

How can we sufficiently admire those sacred writers, who forbid the sacrifices of these detestable groves and abominable idols, but have made them the spots for quiet contemplation and calm reflection? Lord Thurlow says —

"The forest is to me the sweetest college
Of any, that the outward world can show,
Lacking professors, yet most rich in knowledge;
For vile profession is to virtue foe.
Wisdom doth here in all its branches grow,
Preaching in stones, and from the senseless wood,
Brawls in the brooks, and, wheresoe'er we go,
The tongueless lecture still is understood."

Pliny tells us that neither the fir or pine grew naturally in the vicinity of Rome. This author observes that the best timber of this kind grew on the Alps and Apennines, from which circumstance we presume these mountains derived their names, as the Alps are frequently called Alpine mountains.

Pliny says likewise that there are excellent firs in France, Corsica, Bithynia, Pontus, and Macedonia; those which grew in Arcadia, he states, were not so good, but the worst grew on Mount Parnassus.

It is a remark of Cæsar's, in his Commentaries, that during his stay in Britain, he did not see a fir-tree. At what exact period it

was first given to us by the Scotch is uncertain; but it now beautifies the English hills as much as the union has benefited the Scottish people; and it appears to us that we have as good a claim to the fir as the land of thistles.

Turner only notices what the ancient authors have written on these trees; nor does Gerard state that the fir was cultivated in England in his time; but from his account of this tree, we may claim it as a native of some counties in England, unless the Scotch have a claim prior to the deluge, or the formation of the Roman roads in England, in which case, with all our love for our rights, we shall cheerfully cede the fir-tree, *pinus sylvestris*, to our Highland friends.

Gerard says, "The Firre trees growe vpon high mountains, in many woods in Germanie and Bohemia, in which it commeth downe oftentimes into the valleies: they are found, likewise, in Pruse, Pomerania, Liefeland, Russia, and especially in Norway; where I have seene the goodliest trees in the worlde of this kinde, growing vpon the rockie and craggie mountaines, almost without any earth about them, or any other thing, sauing a little moss about the rootes, which thrust themselues heere and there into the chinkes and cranies of the

rockes, and therefore are easily cast downe with any extreme gale of winde. I haue seene these trees growing in Cheshire, Staffordshire, and Lancashire, where they grew in great plentie, as is reported, before Noah's floud; but then being ouerturned, and ouerwhelmed haue lien since in the mosses and waterie moorish grounds, very fresh and sound vntill this day; and so full of a resinous substance, that they burne like a torch or linke, and the inhabitants of those countries do call it Firre wood, and fire woode vnto this day." From this it seems probable that we have given name to this tree, as it has no similitude to that of any other language, and it seems that its various names have been derived from the uses it was put to in Gerard's time, who calls it Firre tree (fire tree), Mast tree, and Deale tree.

Martyn says in his edition of Miller, "As to the immense forests of fir or pine discovered under ground, in various parts of these kingdoms, they were probably the *Pinus sylvestris* or Scotch pine: for the subterraneous cones which I have seen, evidently belonged to this species." Had Cæsar seen more of England, he no doubt would have seen fir-trees in many parts of the country, as they have been found in many situations, where the Romans

had thrown them down to form a basis to their roads in mosses and bogs. Mr. Whitaker says in his History of Manchester, "I have now in my possession two pieces of tried genuine fir, that were bedded with the remains of a birch-tree, one yard and a half in the mossy soil, and three yards under the crown of the Roman gravel; and it has also been very recently dug up, by myself, under the roots of the road over Failsworth Moss."

This tree is not peculiar to Scotland or England alone, as it is common in many parts of Europe, and Mr. Duhamel mentions his having received cones of this species of fir-tree from St. Domingo. The wood of this fir is the red or yellow deal, which is the most durable of any of the kinds yet known.

The Scotch fir is known from other species by the leaves which issue from a white truncated little sheath, in pairs; they are linear, acuminate, quite entire, striated, convex on one side, and flat on the other, from an inch and a half to two inches in length, of a greyish green.

The cones are small, pyramidal, and end in narrow points; they are of a light colour, and the seeds are small. The scales of the male catkins roll back at top, and are feathered.

In favourable soils and situations, this tree

grows to the height of eighty feet, with a straight trunk. The bark is of a brownish colour and full of crevices. It is known by experience, that we have scarcely any soil so bad, or exposure so bleak, where this tree will not live; but when planted upon clayey soils, the timber is not of so good a quality, or the tree so long lived, nor does this species of fir stand the sea air so well as some other kinds, particularly the Pinaster.

Nature is the only pruner that should touch the fir-tree, as the lower branches gradually decay, from the root to the top, leaving no knot or blemish; and the time for felling these trees is known to be when all the branches are dead, except those at the very top. If a fir-tree, whilst in a vigorous state of growth, be much pruned, it will be reduced to premature old age, by the escape of its inflammatory juices.

The fir-tree is not calculated to stand in a small shrubbery; it belongs to a bolder style of scenery, and should be planted so as to give height to our hills, and variety to our views, where

> "Trees unnumber'd rise,
> Beautiful in various dyes:
> The gloomy pine, the poplar blue,
> The yellow beech, the sable yew,
> The slender fir, that taper grows,
> The sturdy oak with broad spread boughs."
>
> DYER.

In extensive shrubberies, on hilly situations, the fir-tree may sometimes be both usefully and ornamentally employed, as a back ground to shelter the more delicate trees, whose lighter foliage will also shine with more splendour by the contrast. When the walks wind near or through the plantations of firs, we should do well to take a hint from Shenstone, who says,

"Not a pine in my grove is there seen,
But with tendrils of woodbine is bound;
Not a beech's more beautiful green,
But a sweet-brier entwines it around."

But this hardy offspring of bleak and snowy mountains seems intended for utility more than beauty, and we would, therefore, recommend it to be planted for profit rather than pleasure, for few trees have been applied to more uses than this. From the time of Solomon to the present day, it has formed rafters to the houses of our cities, and masts to the vessels of our navy.

——— *Dant utile lignum*
Navigiis Pinus. Georg. ii.
"The useful pine for ships."

Its resinous and durable quality has recommended it for numberless domestic purposes, in modern as well as ancient times; when, if we can rely on poetical accounts, it was used by the Greeks in the formation of the cele-

brated horse which Sinon prevailed on the Trojans to admit into their city, and which caused its overthrow.

"The Grecian chiefs for many years in vain
Attacking Troy, yet being repulsed again,
At last a horse of mountain size contrived
By Pallas' art, that moved and seem'd alive;
For ribs were massy planks of Firs inlaid,
And a report throughout their camp they spread
That for their safe return, a vow they'd made;
But in the hollow of the vast machine
They had convey'd choice troops of armed men."

LAUDERDALE.

The advantages that have arisen from the forming large plantations of the Scotch fir in the northern parts of Scotland, have not been confined alone to the profit obtained upon the timber, which has been such as fully to satisfy the owners, but it has rendered some of the barest moors, the bleakest and most inhospitable situations, habitable, and thus as it were, extended the bounds of these dominions; for with these plantations, dwellings have sprung up, and land, which thirty years ago was not considered worth twopence per acre, now, in many instances, lets from ten to thirty shillings per Scotch acre.

In the neighbourhood of these large plantations, houses can be reared at little expence, which induces settlers to make their dwellings in these spots, where they can ob-

tain timber, not only for building, but also to form good fences to their gardens and fields, and fuel for their hearth, whilst cutting and manufacturing the wood furnishes employment to many. Hence the population is augmented, and a demand for land, which is soon brought into a state for cultivating hardy plants.

The leaves and branches of the Scotch fir afford a very wholesome nourishment to cattle and sheep, which is no small consideration in mountainous countries, where the snow lies sometimes upon the ground for many weeks together. The resinous roots are dug out of the ground in many parts of the highlands of Scotland, and being divided into small splinters, are used by the inhabitants instead of candles. The fishermen make ropes of the inner bark, and hard necessity has taught the Laplanders and Kamschatdales to convert it into bread. To effect this, in spring they strip off the outer bark carefully from the fairest trees, and collect the soft white succulent interior bark, and dry it in the shade. When they have occasion to use it, they first toast it at the fire, then grind it into powder, which they steep in warm water to take off the resinous taste; it is then formed into thin cakes, baked, and eaten with as

much thankfulness, or more, than the poor of this country would accept oaten cakes or brown wheaten bread.

Linnæus remarks, that the bark of the fir-tree so prepared will fatten swine; which is an observation that may be worthy the attention of the Highlander. It is said that the boys in Sweden frequently peel off the bark of this tree in the spring, and eat it raw with much pleasure.

It is from the trunk and branches of the fir and pine trees that tar and pitch are obtained. Thus we take not only their body, but their very blood for the formation and security of our shipping. It is curious, says Pliny, that those trees, which are so much sought after for nautical affairs, should delight to dwell on the highest mountains, as if they fled from the sea, through fear of the waters. Burgundy pitch and turpentine are also procured from these trees, which are so extremely resinous, that if not evacuated of their juice, they often swell and burst. The juice, as it issues from the tree, is received in trenches made in the earth, and afterwards freed of its grosser impurities by colature through wicker baskets.

The common turpentine is about the consistency of honey, of an opake, brownish-white colour; it dissolves in rectified spirits,

and its use in medicines is as well known to the apothecary, as to the house-painter as a drier. Nor is the rosin which oozes from these trees better known to the scrapers of catgut than to the manufacturers of salves and ointments; and as Orpheus set the trees in motion by his melodious strains, so has this tree in return assisted mankind to make their merry movement "on light fantastic toe." This favourite tree of Pan lends its aid also in giving breath and tone to the solemn sounds of the organ's harmonious voice. Thus the gay and the grave are equally indebted to this tree of the mountain, in whose branches, says the Psalmist, "the heron loves to build her nest."

THE SILVER FIR-TREE.—*Pinus Picea.*

This noble tree is surnamed *Picea*, or Pitch-tree, from the quantity of tenacious juice or gum which its trunk yields; and which, in ship-building is so well known by the name of pitch. We call it the Silver Fir, from the colour of its leaves on the under side, which have a white line running lengthwise on each side of the midrib, and as these leaves are

shorter and broader than those of other firs and pines, and likewise set much thicker on the spray, it has a beautiful silvery appearance when the under side is viewed, or when the wind turns the branches from the eye, whilst the upper surface is of the brightest and handsomest green of all the species of fir.

The silver fir throws off its lower branches as it acquires age, leaving its bark smooth and delicate. It grows perfectly upright, and to a great height, carrying all its foliage at the top, like the palm. We have lately seen two trees of this kind in the Hare garden of —— Sargeson, Esq. near Cuckfield, which, for size and beauty are not exceeded by any trees of this kind in the kingdom. The cones of this fir are of considerable size and beauty. Tournefort tells us in his travels that he has received cones of this fir from mount Olympus, upwards of a foot in length.

The *pinus picea* is a native of Switzerland and Germany, Dauphiné, Austria, Siberia, mount Caucasus, &c. Evelyn is the earliest author who notices the tree in this country. He tells us, in 1663, that there were then two silver firs growing in Harefield Park, Middlesex, belonging to Mr. Serjeant Newdigate, that were planted there in 1603, at two years' growth from the seed, the biggest of which

was eighty-one feet high, and thirteen feet in circumference below; the length, so far as it is timber, that is, to six inches square, seventy-three feet; in the middle, seventeen inches square, and containing 146 feet of good timber, which it acquired in about sixty-three years.

It has been observed in Ireland, that no tree grows speedily to so large a size as the silver fir; some of forty years growth, in a wet clay, on a rock, measuring twelve feet in circumference, at the ground, and seven feet and a half at five feet high. It is known to be excellent timber for boat-building and Mr. Young tells us of a gentleman in Hampshire, who floored his library with silver fir, fresh cut down, and the boards did not contract in the least.

In forming plantations, our first care should be to attend to the nature of the soil, and then select those trees which thrive best on the kind of food we are about to offer them; for they are all, says Delille,

——— "In secret channels fed,
From root to trunk the wandering sap is led;
Thence through the boughs its liquid virtue sends,
Till in the leaves its rising effort ends."

"I have seen," says Martyn, "some fine trees of this sort of fir, which grew upon natural

bogs, where, by extending their roots, they had drained the ground to a considerable distance round them." "It is in vain," says Mr. Boucher, "to plant the silver fir in hot, dry, or rocky situations, where it commonly loses the top shoots, and the under branches soon become ragged. The largest and most flourishing trees are seen on sour, heavy, obstinate clay; and though for ten or twelve years they do not advance so fast as several other firs and pines, yet in twenty they will outgrow them all. They should not be too close, but require a free circulation of air; whilst the Scotch fir, which thrives in a different soil and situation, prospers best when planted thick; for it is observed, that until the branches intermingle and mutually support each other, the trees never begin to advance with vigour. These plantations generally require thinning from about the tenth to the fourteenth year after planting."

The Dutch have made many a vain attempt to make the fir grow at the Cape of Good Hope, in order to find a supply of ship-masts, which sell at a high price in India; but in England we can find a tree that will grow in every soil we possess, and often to great advantage. In a little work entitled Practical Economy, we are told that in the year 1758,

ninety-two fir-trees were planted upon a piece of ground, about three quarters of an acre in extent. The land was waste and poor: no extra expense was incurred, and no attention was paid to the young trees. In 1813 they were cut down, and yielded ninety tons of timber, then worth 4*l.* per ton, giving a round sum of 360*l.* which was equal to a rent of 6*l.* 10*s.* during the intervening fifty-five years.

We have often regretted that the trustees of public roads cannot be induced to plant the waste ground which often borders the turnpike with trees, which would greatly ornament the country, accommodate the traveller by shade and shelter, and in time be the means of lowering the toll.

The balm of Gilead fir, *pinus balsamea*, is so called, because the turpentine which is obtained from the wounds of this tree, is similar to the true balm of Gilead, for which it is sometimes sold. The buds and leaves of this tree are also very fragrant, which induces us to give it a situation in the shrubbery. It is a native of North America, and was growing in the Bishop of London's garden, at Fulham, as long back as 1696; but it does not generally arrive at any considerable size in this country. The finest specimens, we are told,

are at Woburn Abbey, in Bedfordshire, the seat of His Grace the Duke of Bedford. It requires a sheltered situation and a good deep soil. The leaves are coloured, like those of the silver fir, but wider and blunter, and disposed on each side along the branches like the teeth of a comb; but in a double row, the upper one shorter than the under. Underneath, they are marked with a double glaucous line, and each has eight rows of white dots. The cones of this fir are small and of a roundish shape.

The hemlock fir, *pinus Canadensis*, is also a native of North America. It was first introduced into English pleasure-grounds by Peter Collinson, Esq., in the year 1736. It is a beautiful but delicate tree, requiring a good soil and a warm sheltered situation. Mr. Boucher says, it would be improved by tying its leading shoot to a stake annually as it advances. It is not found to thrive well in any part of England, nor in many parts of America; though, in other parts of that continent, it grows to be a very large tree.

FURZE. — ULEX. — GORSE OR WHIN.

Natural order, Papilionaceæ or Leguminosæ.
A genus of the Diadelphia Decandria class.

" The common, overgrown with fern, and rough
With prickly gorse, that shapeless and deform'd,
And dangerous to the touch, has yet its bloom,
And decks itself with ornaments of gold,
Yields no unpleasing ramble: there the turf
Smells fresh, and rich in odoriferous herbs."

COWPER.

THIS British beauty too rarely occupies a spot in the English shrubbery, where its yellow flowers would shine as conspicuous in the dreary month of November, and scarcely less ornamental than the gay laburnum of May and June; and which it as greatly excels in perfume, as in the duration of its flowering, which is generally from the end of March, until the end of December; and even the remaining months, are not without some sprinkling of these papilionaceous flowers; and from which the rustics remark, that love

goes out of fashion, when the furze is out of blossom.

This plant, which is as singular by its *chevaux-de-frise* branches, as enlivening by its golden colour, is only to be found in temperate climates. Provence is its boundary to the south, and it reaches neither Sweden nor Russia towards the north. Linnæus lamented that he could hardly preserve it alive in a greenhouse; and so rare is it in many parts of Germany, that Dillenius, their botanist, was in a perfect ecstasy, when he first visited England, and saw our commons covered with the gay flowers of the furze-bush.

——— " The sight is pleased,
The scent regaled, each odoriferous leaf,
Each opening blossom, freely breathes abroad
Its gratitude, and thanks him with its sweets !"

Gerard tells us, that he was " desired by diuers earnest letters," to send seeds of our common furze and broom to Dantzick, Brunswick, and Poland, where the plants were most curiously kept in their fairest gardens.

The furze-bush is the favourite nestling bush of one of our feathered warblers, which did not escape the sweet poet of the seasons.

" Nor are the linnets, o'er the flowering furze
Pour'd out profusely, silent."

How many situations have we seen, where the hedge-rows might be relieved of their sameness, and a cheerful variety given to the view, by simply scattering a few clumps of furze-seed at unequal distances;

——— "Affording prospect sweet
To human ken;
——— the yellow fields
Gaily interchanged, with rich variety
Pleasing, as when an emerald green, enchased
In flamy gold, from the bright mass acquires
A nobler hue, more delicate to sight."

In the shrubbery, it should be placed at a distance from the walks; and where it is viewed between or beneath evergreen-trees, it has the best effect. In these situations, it often grows to a considerable height, and forms an admirable shelter to more delicate plants.

Although the furze-bush is sometimes quite cut off by severe frost, yet it springs up again from the root with additional beauty; and it has the quality of enduring the sea-breeze, which it seems to delight in, as we have found it in flower at all seasons of the year in such situations, and often so near to the edge of the water, as to have its roots washed by the advancing waves. These are situations, also, where it should be cultivated

particularly by those who have dwellings near the shore, as the ocean is seen with additional advantage, when viewed over these yellow-clad shrubs.

The furze is generally considered to be the Σκόρπιος (scorpius) of Theophrastus, and the *Ulex* of Pliny, which was a shrub, the ashes of which were used as a lie for separating gold from the substances with which it was mixed. In later times it was evidently thought to be a species of broom, as Dodonæus, Bauhinus, Tragus, Lobel, and other writers style it *Genista spinosa* (thorny broom).

Gerard says, "There be diuers sorts of prickley broome, called in our English toong by sundry names, according to the speech of the countrey people where they do growe; in some places Furzes, in others Whinnes and Gorsse, and of some Prickley Broome." This author adds, "We haue in our barren grounds of the north parts of England another sort of furze, bringing foorth the like prickly thornes that the others haue; the onely difference consisting in the colour of the flowers; for the others bring foorth yellowe flowers, and those of this plant are as white as snowe." He calls this plant *Genista spinosa flore albo.*

Parkinson says, in 1640, "In the north parts of this land I heare that in divers places,

the furse, or gorse bushes as they call them, beare very white flowers, differing in nothing else from them that bear yellow, for they are often seene both growing together in one ground."

As we have neither seen or heard of this variety in modern times, we fear it has become extinct; and that it was merely a variety caused by the seed falling into some peculiar spot of soil, which had become more delicate than the natural plant.

Furze is not without its uses in rural economy; but time which civilizes one country, and throws others back into barbarity, changes also the habits of men so effectually, that what is deemed a blessing in one age, is almost considered a curse in the next. In this kingdom, where we now descend into the bowels of the earth and scoop out its stratas of sulphureous inflammable fossils, for our domestic fuel and manufactory fires, the furze-bush is less regarded than formerly, and more particularly since the improvement of our roads and the increase of our canals has rendered the conveyance of coals so easy to all parts of the country, that it is now generally used by the agriculturist in burning lime, which was formerly done by furze-bushes only. No longer back than the time of

Charles the Second, we are told by Evelyn, that the cultivation of the common furze was as profitable in Herefordshire, on their poor land, as the best wheat land in England. He adds, that "in Devonshire (the seat of the best husbands in the world) they sow on their worst land, well plowed, the seeds of the rankest furze, which, in four or five years, becomes a rich wood: no provender, as we say, makes horses so hardy as the young tops of these furzes; no other wood so thick, nor more excellent fuel. The young and tender tops of furze, being a little bruised, and given to a lean horse," he tells us, "will strangely recover and plump him." M. Pirolle informs us in *Le Bon Jardinier* for 1822, that in many parts of France, particularly Normandy, the furze-bush is ground or bruised in a cider-mill, and given to their horses with advantage. Goats, kine, and sheep, as well as horses, feed upon the tender tops of furze with pleasure. It is at present much less sown for hedges than it was some years back, because it was found to become naked at bottom, which might be prevented by keeping it cut in the same manner as the quick-set. On very poor hungry gravel or sandy land this crop may still be turned to profit, as the country house-wife will give a price for the

furze faggot, which heats her oven, and supplies her with excellent ashes for her lie. During the height of agricultural prosperity, it was principally sown as a cover for game, for which it is admirably adapted; and it is with great pleasure we see it employed for this purpose in poor lands, as we are no less an advocate for the increase and preservation of game, than we are desirous to see the game laws new modelled and justly administered; for surely what a gentleman rears with expence, and preserves with care on his own estates, ought to be as decidedly his own as the deer in his park, or the poultry in his yard. But at present it is his to shoot, but not his to dispose of; he dares not send it to the open market to benefit himself, or to gratify the public, who do, and ever will, esteem it hard that laws should forbid them to eat such wholesome food as they have a desire for, and money to purchase. We admit that a qualified person is allowed to make presents of game, but we cannot ask our licensed friends for a brace of birds without giving them the idea that we think ourselves neglected; and few would wish to give, or conceive such an idea.

It is not long since the physicians of Paris forbad a most interesting invalid of our family

to take any animal food excepting partridges, which were recommended as a daily diet. These were easily obtained, so long as we remained not only in that city, but in all the country towns likewise; but the moment we arrived in an English town, this comfort was forbidden, unless we would either condescend to beg, or risk the penalty of offended laws.

We feel satisfied that if game were allowed to be as publicly sold as venison, we should in a few years hear no more of poachers than we now hear of deer-stealers.

The number of poachers, who, at the present time, fill our prisons, is a national disgrace, whilst their terrible boldness and infamous acts would be revolting to the most uncivilised nations; but as long as luxury demands, and the laws forbid, the regular supply of this kind of food, so long will there be found men to pursue the nefarious trade of poachers. We hear of no poachers on the continent, where game is publicly sold; and it would be hardly more unreasonable to banish mutton from our shambles for fear of creating sheep-stealers.

At the time when the luxury of the patricians was undermining the safety of the Roman empire, the plebeians were prohibited by law from eating artichokes, which were then con-

sidered a dainty for man, although Pliny considered it the natural food of the ass.

Botanists divide the furze into two species, *Ulex Europæus*, the common large kind, and *Ulex nanus*, the dwarf furze, with decumbent branches, and spines horizontal, or partly deflexed. Dr. Witherington thus distinguishes the two species. In the common one, the corolla is longer than the calyx, and the thorns longer than the corolla. In the dwarf furze the corolla is as long as the calyx, and the thorns are shorter than the corolla.

Naturalists observe, that the pods of the furze open with the warmth of the sun, and that the seeds are cast out by an elastic spring to a great distance all around, where they soon vegetate.

The furze is an excellent shelter, where the seeds of forest trees, such as acorns, beechmasts, chesnuts, &c. are planted; as this thorny shrub will secure them until they grow up, when the trees will starve and destroy their early protectors.

"And what more noble than the vernal furze,
With golden baskets hung? Approach it not,
For ev'ry blossom has a troop of swords
Drawn to defend it. 'Tis the treasury
Of fays and fairies. Here they nightly meet,
Each with a burnish'd kingcup in his hand,
And quaff the subtile ether."

HURDIS.

GUELDER ROSE.—VIBURNUM OPULUS.

Natural order, Dumosæ Caprifolia, Juss. *In the wild state it is a genus of the Pentandria Trigynia class.*

"The snow-ball which eclipses
The white bosom of Venus."

This offspring of accident or cultivation, which Vertumnus presents to our shrubbery, to harmonize with the elegant lilac, and group with the gay laburnum, holds a conspicuous situation in the regions of Flora,

"Throwing up into the darkest gloom
Of neighbouring cypress, or more sable yew,
Her silver globes, light as the foamy surf
That the wind severs from the broken wave."

This native shrub often rises to the height of eighteen or twenty feet, clothing itself with a light green foliage, lobed in a similar manner to that of the maple-tree, and decorating its grey irregular branches with clusters of abortive flowers, resembling the works of the finest chisel upon the purest alabaster; parti-

cularly in the months of May and June, when they exhibit themselves on the glittering green foliage, forming a most agreeable picture.

Gerard, who has left us engravings of this neutral flowering shrub, calls it *Sambucus Rosea*, the Rose Elder. This excellent author says, "The *Sambucus palustris*, the water elder, groweth by running streames and water-courses, and in hedges, by moist ditch sides. The rose elder groweth in gardens, and the flowers are there doubled, by art, as it is thought." We learn from this account that it was not then, 1596, considered either rare or new. He says further, "In my garden there groweth not any fruit vpon this tree, nor in any other place, whereof as yet I haue any vnderstanding or knowledge;" to which he adds, "it is an hedge-tree; the Dutch call it Gheldersche Roose, in English Gelders Rose, and Rose Elder." Thus it appears we borrowed the inelegant name of Guelder Rose from the Dutch, to whom we would have it returned; being better pleased with the appellation of snowball, which its extreme whiteness and globular form resemble. This name is also conformable to the *Schneeball* of the Germans, and *Boule de Neige* of the French.

The Dutch name it *Guelder*, after Guelderland, from whence they first procured it, as the additional *sche* (from) denotes. The generic name *Viburnum* is thought to be from *vieo*, to bind; because some species of these shrubs have twigs, fit for bands. Aiton notices twelve different species of viburnum, some of which have numerous varieties.

It rarely occurs, that flowers growing in their natural state and habits, become double; and when this adventitious circumstance takes place, it arises principally from an excess of nourishment, from the effect of cultivation, or of some occurrence of natural circumstances analogous to it. It is one of the principal objects of the florist, to double the petals of flowers as much as possible, because great rarity is more sought after than pure beauty; and in general estimation, the beauty of a flower is augmented in proportion to the number of its petals; but the botanist turns from such flowers with disappointment, because he sees one of their parts unduly augmented, to the diminution or total exclusion of some of the rest; for the anomaly most generally consists in the multiplications of the divisions of the corolla, by the conversion of parts of the stamens into petals; but in the guelder rose, the corollas are increased,

to the utter exclusion of both stigma and stamina; hence, this plant cannot produce seed, but as it is easily propagated by layers or cuttings, as well as by suckers, this variety is kept perfect. In its natural uncultivated state, this shrub produces its flowers on cymes, the inner ones of which are perfect flowers; but those in the margin of the cyme are abortive, and merely consist of a large, irregular, flat petal, without any organ of fructification.

The guelder rose or snowball-tree, loves a moist soil; where it not only grows more rapidly than in dry situations, but produces more numerous and larger globes of its pale petals. Emblematically, this flower is used to represent the winter of age.

HAWTHORN, OR WHITE THORN.—CRATÆGUS.

Natural order, Pomaceæ. Rosaceæ, Juss. *A genus of the Icosandria Digynia class.*

"Now let me sit beneath the whitening thorn,
And mark thy spreading tints steal o'er the dale:
And watch with patient eye
Thy fair unfolding charms."

MRS. BARBAULD.

"Gives not the hawthorn-bush a sweeter shade
To shepherds, looking on their silly sheep,
Than doth a rich embroider'd canopy
To kings, that fear their subjects' treachery!
O! yes, it doth; a thousand fold it doth."

SHAKSPEARE.

"And every shepherd tells his tale
Under the hawthorn in the dale."

MILTON.

THE garland of Flora does not possess a more charming blossom than this British hedge beauty; nor do the most luxurious spices of Asia, give a more grateful perfume

than this flowering shrub, which covers its thorns with petals as white

" As when the piercing blasts of Boreas blow,
And scatter o'er the fields the driving snow."

——— " Now the air
Is rich in fragrance! fragrance exquisite
As new-mown hay!"

" Then, solitude, 'tis thine in every gale
To hear celestial breathings; from each hill
To quaff the balmy essence of the breeze;
To mark, in every magic change of scene,
The grand diversities of nature's laws,
Yet find in all the ever-present God!
Whose power, sublime, with equal wonder moves
In the small floweret bursting from the earth,
As in the sphere-crown'd eagle's towering wing!"

MRS. ROBINSON.

It is said, that the hawthorn flowers, not only regale the spirits by their odour, but that they have the power also of counteracting poison. It has been made the happy emblem of hope, because the young and beautiful Athenian girls brought branches of hawthorn flowers, to decorate their companions and friends on their wedding-day; whilst they carried large boughs of it to the altar. The altar of Hymen was lighted with torches made of the wood of this tree, and it formed also the flambeaux which lighted the

nuptial chamber. The Romans had, also, bedecked themselves with branches of hawthorn, when they seized the Sabine women; and it was, therefore, used by them in the *fasces nuptiarum*.

Diodorus, a Sicilian historian, who flourished about forty-four years before the Christian era, tells us, that the Troglodites, when they interred the corpse of their friends or parents, tied branches of hawthorn to their bodies; and then, laughing, strewed the body first with the branches of this shrub, and afterwards with stones, until it was covered. These simple people considered death as the morning of life, where they should never separate. Happy hope! which gave the Troglodites immortality, and the Grecian youths fond marriages; may you likewise, ever be the prop of the afflicted, and of those whose friends

> ——— "When they once perceive
> The least rub in your fortune, fall away
> Like water from ye, never found again
> But when they mean to sink ye."

Religion, which was given to bless mankind with cheerfulness and hope, has always been converted by the crafty, in ignorant ages, into rods of terror and torches of superstition; and they did not fail to seize on the haw-

thorn-bush, as an instrument with which they might impose on the credulous; thus, in some parts of France, the country people affirm to you in good faith, that the hawthorn groans and sighs on the evening of Good Friday; and on this superstition, they have made it the emblem of lamentation. There are others, who gravely adorn their hats with a bunch of hawthorn, in the belief, that during a storm, the thunder will not dare to reach them from respect to their head-dress. It is also related, that on the morning following the horrible massacre of St. Bartholomew a hawthorn was seen to blossom in the church-yard of St. Innocent, in Paris, which is now converted into the hall or great market. It is hardly necessary to state, how differently the two parties interpreted this phenomenon.

We have also our Glastonbury thorn stories, to match those of our neighbours. Sanctified deceit affirmed, that this thorn was the identical staff of Joseph of Arimathea, the counsellor, who buried Christ; who, according to the tradition of the abbey of Glastonbury, attended by twelve companions came over into Britain, and founded, in honour of the blessed Virgin, the first Christian church in this island. As a proof of his mission, he is

said to have stuck his staff into the ground, which immediately shot forth and blossomed; and the vulgar for a long time believed that this tree blossomed annually on Christmas day.

The Glastonbury thorn is a variety of the common white thorn, *oxyacantha*, which blossoms in the winter about January or February, and sometimes even as early as Christmas.

Dioscorides names this shrub Ὀξυάκανθα (oxyacantha), whilst Theophrastus writes it Κράταιγος, or Κραταιγών, which is supposed to be derived from κράτος, which signifies strength. It appears to be the *spina* and *spina appendix* of Pliny.

The fruit of this bush are called haws, from whence the name of Hawthorn, which some suppose to be from the German *hagedorn*, the Danish *hagetorn*, the Swedish *hagtorn*, or the Dutch *hage*.

It is often called white thorn from the colour of the flower-petals, and May-bush from its blossoms appearing in that month, and which were more noticed in old times before the country was embellished with so many early-blowing exotic shrubs; for on the festival of Flora, on the first of May, our ancestors never failed decorating with it the May-pole, which was permanently fixed in or

near every town and village in the kingdom, and the boldest youth climbed to fix the garland of flowers on the top, whilst others less courageous, hung festoons and wreaths of flowers through the garland, or twined them around the pole,

"To fetche the flowers fresh, and branch and blome;
And namely, hauthorn brought both page and grome,
With fresh garlandes, party bleu and white:
And then rejoysen in hir grete delite."

CHAUCER.

A king and queen were then elected, who regulated the entertainment, and settled disputes; the former was distinguished by an oaken wreath, and the latter by one of hawthorn: when dancing and other rural sports took place in honour of the goddess. This rustic amusement was evidently introduced by the Romans, as we see in it the remains of their ancient games, Floralia, that were instituted in Rome as early as the time of Romulus, and which the Phoceans and Sabines observed even in earlier days. As Rome became degenerated, this feast was turned into scenes of the most unbounded licentiousness; and it is related that Cato wished once to be present at the celebration, but when he saw that the deference for his presence interrupted the feast, he retired, not choosing to behold

the indelicate spectacles about to take place in public. This behaviour so captivated the degenerate Romans, that the venerable senator was treated with the most uncommon applause as he retired, which shows that virtue and modesty are always respected even by vice itself.

At the present time there is not a door at Athens, that is not crowned with a garland of flowers on the 1st of May; and the youth of both sexes, with the elasticity of spirits so characteristic of a Greek, forget, or brave, their Turkish masters, while, with guitars in their hands and crowns upon their heads,*

"They lead the dance in honour of the May."

The French have given the elegantly appropriate name of Aubépine to this flowering thorn, which means the morning of the year, as *aube* expresses the white, or twilight, before sun-rise. Passerat, a French poet, compares these flowers to the dangers of love.

Belle fleur d'Eglantier, belle fleur d'Aubépine,
Désirant vous cueillir, bien souvent on s'épine;
Qui désire, en amour, cueillir de belles fleurs,
Il n'y cueille souvent que regrets et que pleurs.

* Douglas's Ess. on the Ancient and Modern Greeks.

In the French language it is also called *Epine blanche*; in Spanish, *Espino blanco*; in Italian, *Biancospino*, which names are all analogous to our white thorn.

Religious devotees call it the noble thorn, from a belief that it was this thorn which formed the crown of Christ.

The hawthorn branches are scarce less gaily besprinkled by Flora in the spring, than adorned by Pomona in the autumn, who nourishes the feathered choristers with these scarlet haws; and on this account we would have in our shrubbery

——— "berry-bearing thorns,
That feed the thrush."

And none should omit

"The hawthorn-bush, with seats beneath the shade,
For talking age and whispering lovers made."

The double-blossomed hawthorn is certainly one of the greatest ornaments of our pleasure-grounds, whether it be kept as a shrub, or trained as a tree. There are two large trees of this description on the lawn before Warwick-house, at Worthing, whose impenetrable shade defies the beams of Sol, when he darts his fiercest rays.

Some of the double varieties are of a fine lake colour, others are white at their first ap-

pearance, and change to a faint red as they decay. The double blossoms are less fragrant than the common variety, which reminds us, says a French writer, of those young females who fear not to change their simple apparel for a more gaudy dress, which adds nothing to their attractions.

The foliage of the hawthorn is of the most agreeable medium green, and so highly polished, that the white flowers are reflected on their shining surfaces.

In husbandry, these shrubs are called quicksets; and when kept well cut, they form hedges scarcely less impregnable than those composed of holly. The clipping of hedges and trimming of trees, must certainly be advantageous to the farmer, although it adds nothing to the beauty of rural scenery. Crabbe observes,

> "We prune our hedges, prime our slender trees,
> And nothing looks untutor'd and at ease."

These verdant walls are greatly improved in appearance, when an occasional branch is suffered to grow in shape of a tree, above the shorn hedge. Hawthorn hedges appear to have come into use about the time of Charles the Second, as Evelyn observes in his Sylva, "I have been told of a gentleman who has

considerably improved his revenue, by sowing haws only, and raising nurseries of quicksets, which he sells by the hundred, far and near. This is a commendable industry, and any neglected corners of ground will fit this plantation."

The seed of the hawthorn seldom vegetates until the second year; but if turkeys be fed with these haws, and their dung planted in drills, the young plants appear above ground the first year. Mr. Boutcher says, the haws should remain on the bushes till the end of October, when they become blackish. If you do not sow them immediately, as soon as they are gathered, spread them on an airy floor for five or six weeks, till the seeds are dry and firm; then plunge them into water, and divest them wholly of their pulp, by rubbing them between your hands with a little sand; spread them again on the loft three or four days, till quite dry; mix them with fine loose sandy mould, in quantity not less than the bulk of the seeds, and lay them in a heap against a south wall, covering them over three or four inches deep, with soil of the same quality as that with which they are mixed. If you do not sow them in the spring, in this situation let them remain till the second spring, as the seeds, if sown, will not appear

the first year. That the berries may be as equally mixed with the soil as possible, turn over the heaps once in two months, blending the covering with the seeds, and at every turning give them a fresh covering, in the winter months. They should be sown the first dry weather in February, or the beginning of March. Separate them from the loose soil in which they were mixed, with a wire sieve. The ground should be good, dry, fresh land, well prepared; and the seeds beat down with the back of a spade, and then covered about half an inch thick with mould; or they may be dropped in drills about eight inches apart."

The yellow-berried hawthorn, which was originally brought from Virginia, has a double recommendation to the shrubbery, as it

"Smiles in the bud, and glistens in the flower!"

for its buds are of a fine yellow in the spring, and its fruit, which is the colour of pure gold, or Seville oranges, hang on the branches nearly the whole winter, giving great gaiety to the plantation; and it is generally very productive of haws.

Evergreens should never be planted without a few of these shrubs being intermixed, to enliven them in the winter months. The

variety of the common hawthorn which bears large oblong haws of a bright scarlet colour, should also be planted for effect in winter; as its red fruit is often seen shining through the snow-bedecked branches with peculiar beauty. But the lovers of nature will always find charms in plants. Philips writes to the Earl of Dorset, from Copenhagen,

"Soon as the silent shades of night withdrew,
The ruddy morn disclosed at once to view
The face of nature in a rich disguise,
And brighten'd every object to my eyes;
For every shrub, and every blade of grass
And every pointed thorn seem'd wrought in glass;
In pearls and rubies rich the hawthorns show,
While through the ice the crimson berries glow."

It has often created our suprise that men who expend large sums of money in forming gardens of pleasure, and much time in selecting plants, should bestow no time or attention on botany, which would add so materially to the gratification which flowers give them; for without some slight knowledge of this science, they cannot enjoy the works of nature, because they do not know where to look, or the utility of what they look at. The botanist looks into the flowers of the hawthorn not only to observe the stigma and to count the chives which surround it, but he

observes the shape of the five petals, whose concave forms protect the pollen, and mature it by acting as reflectors. He then sees them bend over their chives, and rest their heads of pollen on the stigma, which has some attractive power not yet defined. He is delighted at the regularity and order with which they discharge their prolific powder, and retire back to give place to other chives, until the whole have performed their office without confusion. He knows then that the petals have discharged their part towards the formation of the future plant, and he sees them given to the wind without regret; because he knows it is necessary for the young fruit to enjoy the juices of the plant, without its being spent any longer on the petals. Thus,

——— "The garden yields
A soft amusement, an humane delight,"

not enjoyed by others, who say,

"But our attractions are a stronger sort,
The earliest dainties and the oldest port."

The hawthorn is peculiarly adapted for small lawns or paddocks, where larger trees cannot be admitted. When standing singly, it often reaches to the height of twenty-five or thirty feet, with a trunk from four to eight feet in

circumference. The wood is tough and good for the turner's use, being but little inferior to box. Combs were formerly made of this wood, particularly from the root. A decoction of the bark yields a yellow dye; and with copperas is used to dye black. Not only the birds, but the peasants in many countries, eat the haws, and in Kamschatka they are fermented into wine.

A variety of the common hawthorn, *Cratægus oxyacantha*, has been discovered in a hedge near Bampton, Oxfordshire, which produces white berries.

HAZEL. — See *Pomarium Britannicum*.

HEATH.—ERICA.

Natural order, Bicornes. Ericæ, Juss. *A genus of the Octandria Monogynia class.*

——— "Heath, and rugged thorn,
Shew the sad image of a soil forlorn."
DELILLE.

DR. ANDERSON affirms, that wherever heath abounds, there is generated, by the rotting of the plant, a peculiar black earth, that is not only of itself sterile, but has a powerful tendency to make any other soil unfertile. But however our native plants may be affected by this earth, it is clearly known that we cannot cultivate with success many of the exotic beauties that now grace the shrubbery without giving them this soil, so congenial to their nature, nor can we succeed in raising our native heaths without giving them their native mould.

Theophrastus calls this plant, Ερείκη (ereikè); from ἐρίκω, or ἐρείκω, *frango*, to break; from its

supposed quality of breaking the stone in the bladder. The English name of Heath is evidently derived from the German *Heide*, though some think it is from the Latin *Erica*. In some parts of England it is called Ling, from the Danish *Lyng*. In Scotland it is called Hather and Heather. Their Poet of nature says,

> " The moorcock springs, on whirring wings,
> Among the blooming heather."

These undershrubs, or miniature trees, beneath whose roots the jumping rabbit loves to burrow, enliven the dreary common by their violet bells, or empurple the forest-bank by their numerous corollas, which are often happily harmonized by the cheerful broom.

> " A heath's green wild lay pleasant to his view,
> With shrubs and field-flowers deck'd, of varied hue;
> There hawthorns tall their silver bloom disclosed,
> Here flexile broom's bright yellow interposed."

The foliage of the heath is evergreen, and of various and beautiful shapes, which, on inspection, is found as pleasing as its singular blossoms. It is made the emblem of solitude in the language of flowers; and thus, when the fond swain presents his mistress with a bouquet of heath and pansies, she understands his

heart would be at ease, if his solitude were blessed by her society. Other flowers carry the expression of "Think of me in solitude;" and a hundred other woeful speeches are thus silently told. To such a pitch of perfection is this language carried by lovers in the East, that they employ even the different shades to describe the different degrees of their passions.

Although the Cupid-pierced of our country generally explain the nature of their wounds by vocal or ocular language, yet we are desirous to meet the *Erica* in the shrubbery; for

"E'en the wild heath displays its purple dyes,"

and that to considerable advantage in many situations, filling up spaces between the walk and higher shrubs; and where the grounds are extensive and hilly, little clumps, let into the lawn, with a sprinkling of thyme, give a natural appearance and perfume to the spot. This genus of plants was entirely neglected in ornamental grounds until their beautiful relatives arrived from the Cape of Good Hope and other parts of the globe, to embellish our crystal gardens, where,

"Unconscious of a less propitious clime,
May bloom exotic beauty, warm and snug,
While the winds whistle and the snows descend."

The diminutive size of these plants, their extreme beauty and great variety, fit them better for the green-house than most other plants. Our collectors have now about four hundred species of heath, of such various colours and forms, as to defy the pen in description; for some species present us with little wax-like flowers, others with pendent pearls; some are garnished with coralline beads, whilst others seem to mimic the golden trumpet, or tempting berries, or porcelain of bell or bottle shape; some remind us of Lilliputian trees, bedecked with Turkish turbans in miniature; some have their slender spray hung with globes like alabaster, or flowers of the cowslip form: nor are their colours less varied than their shape; whilst the foliage is equally beautiful in its apparent imitation of all the mountainous trees from the Scottish fir to Lebanon's boasted cedar, through all the tribe of pine, spruce, and larch, tamarisk, juniper, arbor vitæ, mournful cypress, and funeral yew. Stages for these plants should be made to imitate rocky mountains, and the effect would be a living landscape in miniature. A favourable spot should be selected in the shrubbery, and planted with native heaths, amongst which the exotic kinds could be placed during the favourable season of the

year. On the cultivation of foreign heaths, we shall only observe, that it depends more on care than art.

The British Botanist admits but of four distinct native species of heath, each of which has its variety; and almost every part of Europe abounds with this denoter of a poor soil. It is common in all the temperate parts of the vast Russian empire; and although it is only regarded for making brooms in warm climates, the inhabitants of the bleak and barren mountains of Scotland, and other northern countries, make it subservient to a great variety of purposes. The poorer inhabitants cover their huts or cabins with it instead of thatch, and it is often used to form the walls of their dwellings, by laying it alternately with a cement of earth.

It often forms the bed of the hardy Highlander. In most of the western isles they dye their yarn of a yellow colour, by boiling it in water with the green tops and flowers of this plant; and woollen cloth, boiled in alum water, and afterwards in a strong decoction of the tops, comes out a fine orange colour. In some of these islands they tan their leather in a strong decoction of it. They also use it in brewing their ale, in the proportion of one part malt to two of the young tops of

heath. Boethius relates that this liquor was much used by the Picts. The cottagers of heathy commons cut the turf with the heath on it, and after drying it, stack it for the fuel of their hearth and their oven. Bees collect largely both honey and wax from the flowers of the heath, but it is generally of a dark colour. Grouse feed principally on the seeds of the wild heath, for the seed-vessels are formed so as to protect the seeds for a whole year.

Cattle are not fond of heath, although goats and sheep will sometimes eat the tender shoots.

HOLLY.—ILEX.

Natural order, Dumosæ. Rhamni, Juss. *A genus of the Tetrandria Tetragynia class.*

"Sing heigh ho! the holly, the holly."

SHAKSPEARE.

"No tree in all the grove but has its charms,
Though each its hue peculiar; paler some,
Some glossy-leaved, and shining in the sun."

THE Greeks named this tree Ἀγρία (agria); which is supposed to be derived from ἄγριος, *immitis*, from its being armed with prickles.

The admirers of Virgil's Pastorals will be reminded of the poetical contentions of Corydon and Thyrsis, when the *ilex* meets their view.

"Beneath a holm, repair'd two jolly swains,
Their sheep and goats together grazed the plains."

DRYDEN.

French naturalists have made the holly the emblem of foresight, because, they say, that the foresight of nature is admirably exemplified in this beautiful tree, which, when growing in its natural forest, protects itself by

numerous leaves bristling with thorns, until it arrives to about the height of ten feet, when the leaves cease to be thorny, and are perfectly smooth and even, because it has no longer occasion to arm itself against an enemy who cannot reach higher; but we revere the holly branch with its spiny and highly varnished foliage, which reflects its coral berries, as an emblem that foretells the festival of Christmas, and the season when English hospitality shines in roast beef, turkeys, and the national pudding.

Tradition says, that the first Christian church in Britain was built of boughs; and that the disciples adopted the plan, as more likely to attract the notice of the people, because the heathens built their temples in that manner, probably to imitate the temples of Saturn, which were always under the oak.

The great feast of Saturn was held in December; and as the oaks of this country were then without leaves, the priests obliged the people to bring in boughs and sprigs of evergreens; and Christians, on the twenty-fifth of the same month did the like; from whence originated the present custom of placing holly and other evergreens in our churches and houses, to show the feast of Christmas is arrived.

This tree appears to have been formerly called Hulver, by which name it is still known in Norfolk, and Holme, in the southern counties; as appears by the name it has given to many places where it grows naturally, as the Holmwood between Horsham and Dorking. Mr. Evelyn says, that the vale near his house, in Surry, was anciently called Holmesdale. We presume, the name of Holly is a corruption of the word holy, as Dr. Turner, our earliest writer on plants, calls it Holy and Holy-tree; which appellation was given it, most probably, from its being used in holy places. It has a great variety of names in Germany, amongst which is *Christdorn*; in Danish, it is also called *Chirstorn*, and in Swedish *Christtorn*, amongst other appellations; from whence it appears, that it is considered a holy plant by certain classes in those countries.

The disciples of Zoroaster believe, that the sun never shadows the holly-tree. There are still some followers of this king of the magi to be found in the wilds of Persia, and some parts of India; who, when a child is born, throw in its face water which has been put in the bark of a holly-tree.

Pliny tells us, that Tiburtus built the city of Tibur, near three holly-trees, over which

he had observed the flight of birds that pointed out the spot whereon the gods had fixed for its erection; and that these trees were standing in his own time, and must, therefore, have been upwards of 1,200 years old. He also tells us, that there was a holly-tree then growing near the Vatican, in Rome, on which was fixed a plate of brass, with an inscription engraven in Tuscan letters; and that this tree was older than Rome itself, which must have been then more than 800 years (book xvi. chap. 44.). This author notices a holly-tree, in Tusculum, the trunk of which measured thirty-five feet in circumference, and which sent out ten branches of such magnitude that each might pass for a tree; he says, this single tree alone resembled a small wood.'

The holly grows to a considerable size, even as a timber tree, in this country, when permitted to stand. Cole tells us, in his "Paradise of Plants," that he knew a tree of this kind which grew in an orchard; and the owner, he says, "cut it down, and caused it to be sawed into boards, and made himself thereof a coffin; and if I mistake not, left enough to make his wife one also. Both the parties were very corpulent; and, therefore, you may imagine the tree could not be small."

Bradley mentions, that he has seen holly-trees sixty feet in height, at a place called Holly-walk, near Frensham, in Surry. Dr. Withering says, that on the north of the Wrekin, in Shropshire, the holly-trees grow to a large size, and they are very common in the Chiltern division of Buckinghamshire. We have also observed it growing abundantly in some parts of St. Leonard's Forest, in Sussex, particularly in the neighbourhood of Handcross. We presume that many noble trees of holly would be seen in this country, but for the practice of cutting all the finest young plants to make coachmen's whips, thus leaving only the crooked branches or suckers to form shrubs.

The holly, when it stands detached and is left to nature, forms one of the most beautiful evergreen trees that this or any other country produces; its pyramidal form, its immoveable foliage, its bright deep-green colour, and brilliant vermilion berries, contrast happily with almost every tree and shrub which the forest or the grove affords.

In the shrubbery these trees have a good effect, when judiciously placed; and although we prefer the common holly in general, we recommend the variegated kinds as great enliveners to dark evergreens, as the yew, cy-

press, &c. They should have the box, or some dwarf shrub in front, and a dark background, whilst the common variety should be mixed with gayer neighbours; and the pale tints of the larch, which tower above its head, harmonize as well with this tree as does the waving birch or tremulous asp.

The variety with yellow berries was found wild near Walder Castle, as also at Wiston, near Buers, in Suffolk; it is a very ornamental tree in the shrubbery, as its berries at a distance carry the appearance of blossoms from the month of October to March.

Our nurserymen now offer us nearly fifty varieties of this plant, all of which may be propagated by grafting on a stock of the common sort. The most curious variety is that known by the name of Hedgehog holly, from its leaves being defended in all directions by thorns; this kind grows naturally in Canada; and Mr. Miller considered it a distinct species, and says it continues its natural character when raised from seeds. It was first planted in the Bishop of London's Garden, at Fullham, in the time of Compton, by Mr. George London, who is supposed to have introduced it from France. This ingenious nurseryman says, in his "Retired Gardener," 1706. "We have great variety of hollies

in England, and have brought them to more perfection than they are in any other part of the world."

Amongst the kinds of holly which we noticed in the Jardin des Plantes, at Paris, we were most pleased with a variety, with a very small pointed leaf, named *Aquifolium serratum*, and a second, with a very broad leaf, quite free from spines, which was called *Ilex balearica.*

Columella seems to have recommended the holly to the Romans, as a proper fence for gardens. In his tenth book he says,

"And let such grounds with walls or prickly hedge,
Thick set, surrounded be, and well secured;
Not pervious to the cattle, nor the thief."

Evelyn tells us, that his garden at Say's Court was surrounded with an impregnable hedge of about four hundred feet in length, nine feet high, and five in diameter; "It mocks," says this worthy author, "the rudest assaults of the weather, beasts, or hedge-breakers;" and it was almost the only thing belonging to his garden that was not destroyed by the Czar of Muscovy. Mr. Evelyn had lent his house to Peter the Great, in order that he might be near the Dock-yard at Deptford, during his stay in England; and we are told that this im-

perial shipwright was so fond of being driven in a wheelbarrow over the box edgings and the parterres of the author of the Sylva, that they were entirely destroyed; "which" says he, "I can shew in my now ruined gardens at Say's Court (thanks to the Czar)."

Mr. Evelyn was evidently a good Christian, but he appears to have overlooked the passage in Scripture, which says,

"Put not your faith in princes;"

for it does not appear that the Emperor of Russia made him the least recompence for the devastation he committed, both in the garden and the mansion; and he certainly was an unrewarded slave to Charles the Second.

Mr. Evelyn informs us, that Lord Dacres had a Park in Sussex, environed with a holly-hedge, so as to keep in any game; and he adds, "I have seen hedges, or, if you will, stout walls of holly twenty feet in height, kept upright, and the gilded sort budded low, and in two or three places one above another, shorn and fashioned into columns and pilasters, architectonially shaped, and at due distance; than which, nothing can possibly be more pleasant, the berry adorning the intercolumniations with scarlet festoons and encarpa."

At the time this author flourished, landscape gardening did not exist, and all the gar-

dens of Europe were laid out on geometrical principles, therefore, these shorn hedges were well adapted to the formal and gloomy dignity of the gardens of that age of avenues, right angles, and octagons; yet we are of opinion with Mr. London, that this style is not altogether to be condemned, it is well adapted to the Palace of Versailles and of the Thuilleries, and all edifices which unite formality with splendour.

Few trees are better adapted for the lawn than the holly, as the colour, either of the darkest or the most silvered, contrast equally well with the turf, and when

——— "The cherish'd fields
Put on their winter robe of purest white,"

It shines still more conspicuous; for the snows glide off the slippery leaves, as if dissolved by the fiery colour of its fruit, around which the feathered tribe crowd to claim the boon which nature has provided for them when other food is buried deep beneath the fleecy waters.

The holly, which forms a verdant pavilion for the chirping tribe, protecting them from the inclemency of the stormy season, forms also a snare for their destruction; for the fowler obtains a viscid substance from the bark of this

tree, which he prepares into birdlime, and thus entangles his prey.

This tree, which loves a cold loamy soil and a sheltered situation, will thrive also where the south-west sea-blasts cut most other trees as if mown with a scythe, nor does it refuse to grow on gravel, chalk, or rocky land; and we have often seen it thrive upon brick earth, as well as upon dry hot sand and sterile heathy commons; thus accommodating itself to almost every soil and situation in the kingdom. Grouping itself with the yellow-broom or furze, it shines unrivalled in the vegetable kingdom, particularly in the month of February. The holly is valuable as well as ornamental. The timber is the whitest of all the hard woods; and therefore preferred by the turner and engraver to most others, as well as by the cabinet-maker, when fashion permits the inlaying of coloured woods. It is often dyed black to imitate ebony; and it has long been in great demand at Tunbridge, in Kent, where it is manufactured into numerous fancy articles.

Deer feed upon the leaves in winter, and sheep browse upon it to their advantage.

Like the hawthorn, the holly sends forth its white flowers in May, and its berries, like the haws of the thorn, hang on the branches

all the winter, and remain in the earth two years before they germinate; unless when they have passed through the stomach of fowls, when they vegetate the first year. We have, therefore, only to give them a similar fermentation by art, which nature gives them in the body of birds, to enable us to raise young plants in one year instead of two. For this purpose, we are recommended to take a bushel of bran, and to mix it with the seeds in a tub or earthen vessel, and wet it with soft water, and let it remain undisturbed for ten days, when it will begin to ferment. It must be sprinkled occasionally with warm water to keep it moist, and in about thirty or forty days the heat of the moistened bran will put the berries into a state of vegetation fit for sowing in about a week after the fermentation has commenced.

March is the best season for sowing this seed, which may also be treated according to the direction given for raising hawthorns. September is the proper season for transplanting young hollies; but in cold or moist soils, they may be planted safely in the spring.

Mr. Evelyn says, he has raised hedges four feet high in four years, from seedlings taken out of the woods. This should induce us to make more frequent trials of raising fences of

this prickly plant; and, particularly, on hilly situations, where it would afford shelter to the shepherd and his flock, against either excessive heat or piercing storms.

Old medical writers tell us, that the ripe berries are relaxing, and astringent when dried; but it is not our intention to recommend the robbing of the feathered tribe, to the injury of the sons of Æsculapius, and, perhaps, of our constitutions at the same time; nor would we willingly be deemed credulous, in noticing the old customs of our forefathers, who trusted to a branch of holly for their defence against witchcraft; but this precaution has become unnecessary, since old ladies have lost their *charming* powers, and the spells of the youthful fair are too agreeable to be driven from us by a rod of holly.

The *Ilex Vomitoria*, commonly called the South-sea Tea, or Evergreen Cassine, is a native of West Florida, Carolina, and some of the warmer parts of Virginia, and principally found on the sea-coast. This species of holly was cultivated in England as long back as 1700, but the severe winter of 1739 destroyed most of the plants; but it has since been raised from seeds, and is found to resist the cold of our winters without protection, excepting that of neighbouring shrubs. It

rises to the height of ten or twelve feet, the flowers are produced in close whorls at the joints of the branches, near the footstalks of the leaves; they are of a white colour, and the fruit is a red berry, similar to the common holly. The tea, made by an infusion of these leaves, is almost the only physic used by the natives of some parts of the New World.

At a certain time of the year these people come in droves, from a distance of some hundred miles, to the coast, for the leaves of this tree; when they make a fire on the ground, over which they place a vessel of water, and throw into it a large quantity of these leaves. They then seat themselves round the fire, and take large draughts of the infusion until it operates as an emetic. In this manner they continue to physic themselves for two or three days; and when their stomachs are sufficiently cleansed, every one takes a bundle of the branches with him to his habitation.

HONEYSUCKLE, OR WOODBINE. — LONICERA PERICLYMENUM.

Natural order, Aggregatæ. Caprifolia, Juss.
A genus of the Pentandria Monogynia class.

" Copious of flowers, the woodbine, pale and wan,
But well compensating her sickly looks
With never cloying odours, early and late."

COWPER.

——— " Or the woodbine wild,
That loves to hang, on barren boughs remote,
Her wreaths of flowery perfume."

MASON.

THE Greeks named this vine Περικλύμενον, and the modern Greeks call it, Περιπλόκας. It received the generic name of *Lonicera,* as a compliment from Plumier to Adam Lonicer, a physician at Frankfort. We name it Woodbine, because it winds itself as it were in wedlock to every tree and shrub in its neighbourhood, which it graces by its well attired

branches in return for the support it borrows; from hence it is styled the Bond of Love.

> " The woodbines mix in am'rous play,
> And breath their fragrant lives away."

In the time of Edward the Third, it appears to have been emblematical of true love, as Chaucer, the father of English poetry, says,

> " And tho that were chapèlets, on hir hede,
> Of fresh wodebind, be such as never were
> To love untrue, in word, in thought, ne dede;
> But ay stedfast; ne for plesance ne fere,
> Tho that they shulde hir hertes all to tere,
> Woud never flit, but ever were stedfast,
> Till that hir lives there assunder brast."

This climbing plant always turns from east to west, and so firmly does it hold its supporter in embrace, that we often see young trees and branches indented like a screw by the pressure. As the gentle Desdemona clung to the dark warrior, so have we seen the delicate and supple stalks of the woodbine endeavour to embrace the trunk of the sturdy oak, and in the bold attempt it is often seen thrown off to perish on the ground, unless caught by humbler shrubs, who seem proud to display the flowery festoons which the monarch of our woods had rejected. So have we seen modern Desdemonas turn

from support within their reach, aspiring to climb by means too large for their grasp; they have been drawn up, in weak hopes, by a slight hold, which the first winds severed throwing them to the earth, too feeble to catch the most lowly plant.

We love to see shrubs "o'er-canopied with luscious woodbine," but in the oak of the forest its beauties wither in the shade of its too grand supporter.

The name of Honeysuckle, we presume, was given to this plant, from the trick of children, who draw out the trumpet-shaped corollas from the calix, to suck the honey from the nectary.

This flower has what is termed a tubulose nectary, and the sweet liquid laying at the bottom is secure from the reach of the industrious bee; but the hawk-moth, a species of the sphinx, hovers over these flowers in the evening, and with its long tongue extracts the honey from the very bottom of the flower. Other insects that have not the advantage of so lengthened a tongue, tap the tubes of the flower, by making a puncture towards the bottom, and then revel in the luxurious sweet.

The nectary of a flower is that part of the blossom which contains a liquid honey, and we are inclined to think that this saccharine

juice is distilled from the plant, and conveyed to the nectary, for the double purpose of giving nourishment to the parts of fructification and decomposition to the farina,

> "These, nature's works, the curious mind employ,
> Inspire a soothing melancholy joy."

The woodbine has a light and elegant, but negligent air, better calculated to ornament rural groves than to embellish stately gardens, and a more suitable climber for the rustic porch than the modern portico. Cunningham has given it to the Cottage of Content.

> "Green rushes were strew'd on her floor,
> Her casement sweet woodbines crept wantonly round,
> And deck'd the sod seats at her door."

The perfume of the honeysuckle being of the most agreeable kind, it should be frequently met with in the shrubbery; when planted near the fore-ground it ought to be kept cut as a shrub, which, as well as giving neatness, ensures a succession of flowers. In the wilderness walks, it should have liberty to climb the trees, and hang its wreaths from branch to branch; and where the ivy gives verdure to the bare trunk, there should the woodbine display its blossoms and shed its odours; as also over the rural arbours of the

present day, as it did o'er those of Shakspeare's.

——— "Beatrice, who e'en now
Is couched in the woodbine coverture."
Much Ado.

The nurserymen of this country now offer us eighteen distinct species of the lonicera, besides many varieties of the common woodbine. The Dutch honeysuckle, *Lonicera Belgica*, may be trained with a stem, and formed into a head like a tree; the flowers of this variety are of a reddish colour on their outsides, and yellowish within, of a very delightful odour. There are two varieties of the Dutch honeysuckle, one of which is called the Long-blowing, as it blossoms in June, July, and August; the other succeeds it, and is therefore called the Late Red-blowing Honeysuckle, *L. serotina*. Both of these should be planted in considerable quantities. The latter kind has only been introduced about a century; for in 1715 it was esteemed a great curiosity, and is supposed to have been first brought to this country by the Flemish florists, who were then in the habit of coming over annually with plants for sale.

The Virginia trumpet honeysuckle, *Lonicera sempervirens*, was cultivated in this country by John Tradescant, jun. as long back

as 1656, and although it is without odour, it is a desirable evergreen climber, the bright scarlet flowers being so ornamental from May to August. This kind of honeysuckle requires a south aspect, and a sheltered situation. The branches being weak and rambling, it is generally trained to a wall; but it has a better effect when its branches are interwoven with the cypress, or any other evergreen, which will shelter it, from the north, and support its gay trumpets to advantage.

The common honeysuckles will grow in almost any soil or situation, and there are few inmates of the shrubbery more desirable than these odoriferous stragglers, which perfume the air to a great distance, particularly in the morning and evening. They are easily propagated, either by layers or cuttings; but the latter are preferred. The cuttings should have four joints, three of which should be buried in the earth, and the fourth above the surface, from which the shoots are produced. September is the best month for planting the woodbine cuttings. How greatly would our hedges be improved by a few cuttings being stuck in the ground; how little the trouble, the expence none,—but the delightful air would well repay the labour.

We should have passed over the medicinal

qualities of this plant, had we not accidentally opened the work of a student in physic, who flourished in London, in the year 1681; and as we conclude it is but little known to the students of 1823, we extract it for the sole purpose of benefiting the faculty—*by a laugh.*

This learned Æsculapian author says, under the head 'Woodbind,' "It is a plant so common, that every one that hath eyes knows them; and he that hath none cannot read a description if I should write it. Doctor Tradition, that grand introducer of errors, that hater of truth, that lover of folly, and that mortal foe to Doctor Reason, hath taught the common people to use the leaves of flowers of this plant in mouth waters; and by long continuance of time hath so grounded it in the brains of the vulgar, that you cannot beat it out with a beetle. All mouth waters ought to be cooling and drying, but honeysuckles are cleansing, consuming, and digesting, and therefore no ways fit for inflammations: Thus Doctor Reason. And, if you please, we will leave Doctor Reason awhile, and come to Doctor Experience, a learned gentleman, and his brother. Take a leaf and chew it in your mouth, and you will quickly find it likelier to cause a sore mouth, or throat, than to cure it. It is an herb of *Mercury,*

and appropriated to the lungs; the celestial *Crab* claims dominion over it, neither is it a foe to the *Lion:* if the lungs be afflicted by *Jupiter,* this is your cure."

In later days, wisdom has shone equally conspicuous in one of the physicians of the celebrated Johanna Southcott.

" There was a time, when we beheld the quack,
On public stage, the licensed tribe attack;
He made his labour'd speech with poor parade,
And then a laughing zany lent him aid;
But now our quacks are gamesters, and they play,
With craft and skill, to ruin and betray:
With monstrous promise they delude the mind,
And thrive on all that tortures human kind.
Void of all honour, avaricious, rash,
The daring tribe compound their boasted trash."

CRABBE.

The leaves of the woodbine are the favourite food of the goat, hence the French have named this plant, *Chèvre-feuille* (Goat's-leaf.)

HORNBEAM, OR HARDBEAM-TREE. —CARPINUS.

Natural order, Amentaceæ. Balaniferæ, Juss.
A genus of the Monœcia Polyandria class.

——— " Art thrives most
Where commerce has enrich'd the busy coast.
He catches all improvements in his flight,
Spreads foreign wonders in his country's sight."
COWPER.

THE introduction of so many exotic trees and shrubs within this last century has banished some of our native plants from the grove, but fashion, who reigns with arbitrary power in these dominions, has entirely swept away the hornbeam, which composed the labyrinth, the maze, the alleys, the verdant galleries, arcades, porticoes and arches of our forefathers; and which formed the leafy walls that divided their stately gardens into stars, goose-foot avenues, and devices as numerous as geometrical figures are various. These have all been banished with the hornbeam, which taste has outlawed from the modern plantation for having so long usurped a pre-

cedency in the groves of our ancestors; and it is now deemed high treason, in the statutes alamode, to name either this tree or a right angle, in the dominions of a modern British gardener.

> " Say, shall we muse along yon arching shades,
> Whose awful gloom no brightening ray pervades?"

The clipping of trees, we are told by Martial, was first introduced by Cneius Matius, a friend of Augustus; and in the account which Pliny the younger gives of his Tusculan gardens, we read that the trees were planted to form circles and semicircles, and that the box-trees were cut with shears, so as to form animals, obelisks—and even the name of Pliny was represented in verdant box. This style of laying out gardens seems to have been followed on a larger scale by Le Notre, who planned the celebrated gardens of Versailles, which cost Louis XIV. between eight and nine hundred thousand pounds sterling; and which are well calculated to display courtly pomp, and that kind of magnificent revelry which this monarch indulged in. But to us this heavy grandeur appears more gloomy than the thickest forest, excepting when the alleys and walks are crowded with company, and the waterworks in full action; then every beholder must be

struck with the splendour of the scene, which the dress of the French ladies is particularly calculated to improve; for the gaiety of their costume relieves the sombre appearance of the trained hornbeam and clipped elm. Their light gauze, gay ribbons, feathers and flowers, substitute blossoms; for whilst one seems to display a basket of roses on her head, others carry nodding tyruses of lilac, or waving laburnum; and with the mixture of poppies, nasturtiums, and sunflowers, with which they are bedecked, you forget that the trees are without blossom; for here you see the gay rank of scarlet soldiers, and there files of green elms; here waves the winged leaves of the acacia, there bows the no less pliable head of the courtier; here dances the jet d'eau in air, there drops to the earth the well-taught curtseying belle; here monsters spout out water to cool the air, while flattery as abundantly sends forth her streams to refresh the vain. In one spot we see the proud officer flaunting round the brazen image of Venus, whilst the opposite angle shows the sentimental dame reclining on the pedestal of Mars or Jupiter. Agricola, a German author, says, this scene gave him a foretaste of Paradise. But when we left it, and entered that part of the gardens which has been lately laid out in the style of an

English shrubbery, we felt as much relieved as one who escapes from the drawing-room on court days to his own domestic hearth.

> "For many a floweret blossoms there, to bless
> The gentle loveliness whose charms imbue
> Its border."

Bradley, who flourished in this country when the hornbeam was in its highest estimation, says, "Versailles, is the sum of every thing that has been done in gardening." The gardens of the Tuilleries and the Champs Elysées were modelled after the gardens at Versailles, and the taste soon reached this country. Evelyn, in his discourse on the hornbeam-tree, says, "That admirable espalier hedge, in the long middle walk of the Luxemburgh garden at Paris, than which there is nothing more graceful, is planted of this tree; and so was that cradle, or close walk, with that perplex canopy which lately covered the seat in his Majesty's garden at Hampton Court." This author speaks in terms of ecstasy of the clipped hedges at Old Brompton Park, then occupied by London and Wise, two eminent nurserymen of that age of clipping and cutting.

Lord Bacon seems to have been the first who tried to reform the national taste: "I

do not like," says this great man, "images cut out of juniper or other garden stuff; they are for children; and as for the making knots or figures, with divers coloured earths, they be but toys."

G. Mason considers the efficacy of Verulam's ideas to have been the introduction of classical landscapes, which banished the tree whose birth and parentage we are about to relate. Its education and death having already been noticed, we shall extract what Gerard has registered as to its name and early residence in these kingdoms. He says, "The hornbeame-tree is called in Greeke Ζυγία, which is as if you should say *coniugalis*, or belonging to the yoke, because it serueth well to make ζυγία of; in Latin *Juga*, yokes, wherewith oxen are yoked together, which are also, euen at this time, made thereof in our owne countrie; and, therefore, may be Englished yoke elme. It is called of some *Carpinus*, and *Zugia*; it is also called *Betulus*, as if it were a kind of birch; but myselfe better like that it should be one of the elmes. The hornbeame-tree groweth plentifully in Northamptonshire; also in Kent, by Gravesend, where it is commonly taken for a kind of elme. In English, it is called

Hornbeame, Hardbeame, Yoke elme, and in some places Witch hasell."

The generic name of this tree is derived from *carpere* (to crop); and the English name of Hardbeam and Hornbeam, from the hard and horny nature of the wood when old. It is sometimes called the Horse-beech, from the resemblance of the leaf.

The French call this tree *Charme* and *Charmille*; and most of the cabinets and divisions of their great gardens are formed of these trees.

It is very common in many parts of England; but is rarely suffered to grow to a timber tree, being generally pollarded by the country people: but Dr. Hunter says, he has seen some of these trees in woods upon a cold stiff clay, that have been nearly seventy feet high, with large noble stems, perfectly straight and sound.

Its propagation is recommended on cold barren hills, and in such situations where few other trees will prosper; and it is found to resist the winds better than most other timber; nor is it slow in growth: but it is recommended to raise it from seed, upon the same soil and situation that it is intended to be planted on. The seeds should be sown in the autumn, soon after they are

ripe; for, if they be kept out of the ground until the spring, the plants will not come up till the following year.

The foliage of the hornbeam is very similar to that of the elm, strongly nerved and of a bright green; it begins to expand about the end of March, and it often remains on the branches until the spring, thus forming an excellent shelter for more tender trees. The flowers are in full blossom about the end of April: the male flowers are disposed in a cylindric ament, and hang like the catkins of the hazel; the female flowers or ament arise from a leafy calix, but having an appearance like a young hazel-nut; and from whence, and its catkins, it has been called Wych-hazel: but the female flowers are also disposed in a long ament, which gives them a nearer resemblance to hops; and on which account, one variety is called the Hop Hornbeam, *Carpinus Ostrya*, or *Orientalis*. This variety was first cultivated in England, in 1739. It was first observed in Italy, and is very common in Germany, growing with the common hornbeam.

The Virginian flowering hornbeam, *C. Americana*, was first introduced in 1812. Linnæus observes that the timber of the hornbeam is very white; and tough, and

harder even than that of the hawthorn, and capable of supporting great weights. He also tells us, that the inner bark is much used in dyeing wool yellow.

The hornbeam, by its mode of throwing out its branches, preserves itself well from the buttings of deer; so that clumps of this tree are proper in parks, both on account of their beauty and shelter.

JASMINE. — JASMINUM.

Natural order, Sepiariæ. Jasmineæ, Juss. *A genus of the Diandria Monogynia class.*

" The jasmine, throwing wide her elegant sweets,
The deep dark green of whose unvarnish'd leaf
Makes more conspicuous, and illumines more
The bright profusion of her scatter'd stars."

COWPER.

THIS sweet emblem of amiability is always acceptable wherever we meet it. It graces alike the lowly casement of the lone widow, and the proud parterre of the rich and gay; the bosom of the village lass, and the oriental vase of the saloon. Its modesty pleases, and its fragrance charms, in all situations; like those whose happy dispositions and amiable manners seem to make them the bond of society, by the grace and facility with which they accommodate themselves to all situations and circumstances. The pretty face of the jasmine flower is only surpassed in loveliness, by the fair whose countenance is brightened by amiability.

"And brides, as delicate and fair
As the white jasmine flowers they wear,
Hath Yemen in her blissful clime."

T. MOORE.

The common jasmine, *Officinale*, which grows naturally at Malabar, is registered in the Hortus Kewensis as a native of the South of Europe; but we are opinion that it did not leave the East until the taking of Constantinople by the Turks, whose fondness for flowers would induce them to transport it to the land they conquered in 1453. It certainly would not have passed unnoticed by Pliny and other ancient authors, had it either grown naturally, or been introduced to that country previous to their time. Dioscorides is the only Greek author that notices it; and as he has given no description of the plant or flower, but only tells us that the Persians obtained an oil from a white flower, with which they perfumed their apartments during their repasts, it is probable he only became acquainted with the oil of jasmine during his attendance as physician on Antony and Cleopatra, in Egypt, whose unbounded luxury would naturally call this essence from the land of odours. This author calls it ἰασμινον, from ἰον (*viola*), and ὀσμη (*odor*), on account of its fragrance; and from whence the name of Jas-

mine has been copied by all European languages. In early days this was mutilated by the English into Gethsamine, Jesemin, and Jasme. It is also the Jasmin, as well as Kajan, and Zambach of the Arabians. At what time this agreeable plant first perfumed the British atmosphere is uncertain: Mr. Aiton says, in 1548; but we consider it to have been much longer acquainted with our soil, as Dr. Turner calls it our comen jesemine in his work, part of which was printed in 1557; and it appears to have been so common in the time of Gerard, as to have been thought a native plant by some persons. This excellent author says, "Gelsemine is fostered in gardens, and is vsed for arbors, and to couer banquetting houses in gardens; it groweth not wilde in England, that I can vnderstande of, though master Lyte be of another opinion: the white jasmine is common in most places of Englande."

If we may believe a Tuscan tale, we owe our thanks to Cupid for the distribution of this pretty shrub. We are told that a Duke of Tuscany was the first possessor of it in Europe, and he was so jealously fearful lest others should enjoy what he alone wished to possess, that strict injunctions were given to

his gardener not to give a slip, nor so much as a single flower, to any person. To this command the gardener would have been faithful, had not the god of love wounded him by the sparkling eyes of a fair but portionless peasant, whose want of a little dowry and his poverty alone kept them from the hymeneal altar. On the birth-day of his mistress, the gardener presented her with a nosegay; and to render the bouquet more acceptable, he ornamented it with a branch of jasmine. The *Povera Figlia* wishing to preserve the bloom of this new flower, put it into fresh earth; and the branch remained green all the year, and in the following spring it grew, and was covered with flowers; and it flourished and multiplied so much under the hand of the fair nymph's cultivation, that she was able to amass a little fortune from the sale of the precious gift which love had made her; when, with a sprig of jasmine in her breast, she bestowed her hand and her wealth on the happy gardener of her heart. And the Tuscan girls, to this day, preserve the remembrance of this adventure, by invariably wearing a nosegay of jasmine on their wedding-day; and they have a proverb, which says, that a young girl, worthy of wearing this nosegay,

is rich enough to make the fortune of a good husband. *

Let us then cultivate more abundantly what love has scattered so happily; for the supple and pliant branches of the jasmine accommodate themselves to numerous situations in the shrubbery.

> 'Here jasmines spread the silver flower,
> To deck the wall, or weave the bower."
>
> COTTON.

They should be woven into the trellised arch or alcove, climb the palisades, rest on the branches of the broad-leafed laurel, cover the dead wall, and run gaily wild over the shrubs of the wilderness walks; whilst, obedient to the scissors of the gardener, they are formed into bushy shrubs and little trees for the near approach to the dwelling, where in the morning and evening their star-topped tubes send forth a shower of odours that embalm, refresh, and purify the surrounding air.

> "Many a perfume breathed
> From plants that wake when others sleep,
> From timid jasmine buds, that keep

* As this story is told of a Grand Duke of Tuscany, in 1699, we conclude it was the Goa jasmine, and not the common sort.

"Their odour to themselves all day,
But, when the sun-light dies away,
Let the delicious secret out
To every breeze that roams about."

T. MOORE.

"Then how serene! when in your favourite room,
Gales from your jasmines soothe the evening gloom."

CRABBE.

From the tube of this eastern flower the bee extracts its most exquisite honey; and the painted butterfly is never seen to more advantage, than when resting on the delicate petals of the white jasmine.

When the jasmine was first introduced into France, it was thought to require all the heat they could give it; it next occupied a place in the orangery, and at length exposed to the open garden, where it thrives as freely as a native plant, and still holds the situation of a favourite with the Parisian belles, and is always the most saleable bouquet that *les dames de la halle* bring to their gay market.

We have often been astonished that our cottagers, who possess little gardens, should not cultivate flowers for sale, particularly the jasmine, which is so hardy and so easily propagated; and with which they might even form their fences, or suffer it to run over their hedges, without taking away any part of their potatoe ground.

In the market they would find one bunch of jasmine flowers would bring them as much money as three cabbages, or a bunch of turnips.—As long back as the time of Charles the Second, Evelyn says, "Were it as much employed for nosegays, &c., with us, as it is in Italy and France, they might make money enough of the flowers; one sorry tree in Paris, where they abound, has been worth to a poor woman near a pistole a year." And at the present time a great deal of money is made by the nurserymen in that neighbourhood, who trim them up with a head on a single stem, and then pot them, and send them to the flower-market covered with blossoms, where they soon find customers amongst those who are wise enough to prefer familiar beauty to costly rarity; and you see it there flourishing equally in the cobbler's window and the palace balcony. The Turks cultivate the jasmine for the sake of the branches, of which the tubes of their summer tobacco-pipes are as invariably made, as those for the winter are formed of the cherry-tree.

As the jasmine does not ripen its seed in our climate, it is increased by laying down the branches, which take root in one year; which may then be cut from the old stock, and planted where they are to remain. It is also

propagated by cuttings, which should be planted early in the autumn, and the earth covered with sand, ashes, or sawdust, to keep the frost from entering the ground.

In situations where it is necessary to prune this plant, it must never be done until the end of March, or when the frost is past. It should also be observed, that the flowers are always produced at the extremity of the same year's shoots, which are often cut off in the summer, by those who are ignorant of its nature; and thus the plant is deprived of the power of treating us with its fragrant flowers.

The common yellow jasmine, *J. fruticans*, is a native of the South of Europe; yet it did not reach this country so early as the white jasmine, as Gerard tells us, in 1597, that it had not then been seen in this country; and Mr. Martyn is therefore mistaken in his statement, that it was cultivated by Gerard in that year.

Parkinson tells us, in 1629, that the yellow jasmine "will well abide in our London gardens, and any where else."

This shrub is easily increased by suckers or layers; but being deficient of odour, it is much less cultivated than formerly. Sheep eat the leaves and young branches of this shrub with great avidity.

The Italian yellow jasmine, *J. humile*, produces larger flowers than the common yellow jasmine, and is therefore preferred in the shrubbery; where it requires a south aspect and sheltered situation. It was first cultivated with us in 1730, but its native soil still remains unknown; it acquired its name from being sent out of Italy with oranges, trees, &c.

This kind is generally propagated by budding, or inarching it upon the common yellow sort, as these plants are more hardy than those raised by layers.

We shall pass over the more tender species of jasmines, which are the inmates of the conservatory; only observing, that the florist cannot bestow his labour on a more delightful genus of plants. We now reckon eleven distinct species of jasmines, besides varieties of several of them.

The ancients employed the berries of the jasmine in their pretended divinations; and the oil obtained from the flowers was used in the baths of females.

JUDAS-TREE.—CERCIS.

Natural order, Lomentaceæ. Leguminosæ, Juss.
A genus of the Decandria Monogynia class.

"And where Judæa's tree its bloom expands
Of purple hue, to fancy's eye it shows
The fertile banks where hallow'd Jordan flows."

DELILLE.

If this tree possessed no other recommendation to a situation in the shrubbery than that of being the identical species of tree on which Judas Iscariot hanged himself, we would have passed it over in neglect, however we might have been condemned by those credulous devotees who often believe the absurdities which have had no other birth than that given to them by their own lunatic brain.

Gerard, who is less given to superstitious stories than most authors of his day, says, "This is the tree whereon Judas did hang himselfe; and not upon the elder-tree, as it is said." At that period, it had no other Latin

name than that of *Arbor Judæ*; and Parkinson observes, in 1640, that "we have no other English name to call it by than Judas-tree, until some other can impose a more apt for it." We have been told of an impudent fellow, who makes money by christening the fruit-trees of other nurserymen with names of his own; and thus, not only passing off the offspring of others' industry for his own progeny, but creating a second name for every apple and pear that leaves his marshy grounds. We are most desirous to see this handsome tree more frequent in our plantations; and sooner than it should be lost for want of a name, we would beg one from the Castilians, who call it *Arbold Amor* (Tree of Love). The French name it *Arbre de Judée*. It is, therefore, probable that we received both the tree and its name from that country, where they have now bestowed a second name on it; viz. *Gainier*, from the likeness the pods bear to the sheath of a knife: but as the common shape of their knives differs so materially from those of our own country, their sheaths would not suit us; therefore, we object to their new appellation for this tree, and henceforward call it Tree of Love, with a hope that it will oftener flourish by the Tree of Life.

This tree reaches about the same height as the laburnum; with which, and the guelder rose, it makes an admirable group, as its papilionaceous flowers, being of a rich purple, contrast delightfully with the gold colour of the one, and the snowy balls of the other. Its flowers appear in May, before the leaves have fully expanded; and they come out of the old branches, and often from the stem of the tree, in large clusters. It is also a desirable neighbour for the hawthorn, flowering at the same time, and blending purple with silver in the happiest manner. The foliage is scarcely less ornamental than the flowers, as its form and colour are peculiar to this tree alone; the leaflets being reniform and alternately pinnate, of a pale bluish-green on the upper surface, and sea-green underneath. And it is observed, that they are never injured by insects; but the birds are fond of the flowers, and often destroy them when fully open. The bark on the branches is of a purplish brown, and the branches grow alternately, like the leaves. The French gardeners often prune and shorten the branches, which renders the tree more productive of flowers. It loves a light soil and a sunny situation; and grows so freely in the South of France, Spain, and Italy, as to be considered a native of

these places by modern travellers, although the ancients do not appear to have noticed it. It grows naturally in Japan, and was cultivated by Gerard, at Holborn, in 1596, who does not mention it as a rare tree; therefore its introduction to this country most probably was much earlier than his time.

The flowers of the Judas-tree are frequently eaten in salads, from their having an agreeable poignancy. The wood of this tree is beautifully veined with black and green; and, as it takes a fine polish, it would be an acquisition to the cabinet-maker. There are varieties of this tree with white flowers, and also with flesh-coloured blossoms, but they have not the beauty of the bright purple kind; and we possess so few trees that yield a purple or blue flower, that it should be cultivated more particularly on that account.

These plants are propagated by sowing their seeds upon a moderately hot bed, towards the latter end of March, or in a warm sunny border; and the young plants require a slight protection from the frosts of the following winter.

We have introduced a species of this tree from North America, called the Canada Judas-tree, *Cercis canadensis*. It is also named the Red bud-tree, from the colour of the flower-

buds in the spring; but this tree is not so ornamental, either by its flowers or foliage as our favourite tree of love. The latter species was introduced in 1730. The young branches are said to dye wool of a very fine nankeen colour.

IVY.—HEDERA HELIX.

Natural order, Hederaceæ. Caprifolia, Juss.
A genus of the Pentandria Monogynia class.

"I love the ivy-mantled tower,
Rock'd by the storms of thousand years."

CUNNINGHAM.

THIS symbol of a generous friendship attaches itself generally to the wretched.

"Thus stands an aged elm, in ivy bound,
Thus youthful ivy clasps an elm around."

PARNELL.

And often when death itself has smitten its protector, it restores to him again the honours of the forest or the shrubbery, where he lives no longer, by decorating his sapless branches with festoons of undecaying verdure and garlands of winter flowers. It seems to cling closer to the trunk, screening its death-struck supporter by its glossy foliage, as if to prevent the fatal blow of the axe.

In this situation the black-headed yellow-hammer loves to nestle, giving cheerfulness to the shade by its bright plumage.

The ivy so much revered by the ancient bacchanalians, was called by the Greeks Κισσὸς and Κίττος (*kissus* and *kittus*), from an infant boy of that name, whom it is pretended that the god of wine transformed into this plant. The Athenians called Bacchus himself *Kittus*. According to Pliny, he was the first that wore a crown, and this crown was composed of ivy. Silenus the demi-god, who became the foster-father of Bacchus, is also represented as wearing a coronet of ivy, as may be seen in an antique statue (No. 468), in the Louvre, at Paris. We are told that Silenus was crowned with, and wore a wreath of flowers. This mistake, we presume, has originated from the ivy leaves being formed into rosets, and a cluster of ivy berries placed in the centre of each, with which his temples are surrounded, and which, in diminutive-sized antique groups of bacchanalians, can only be distinguished from flowers by close inspection, and comparison with those on a larger scale.

At the marriage ceremonies of the Greeks, when the young couple arrived at the temple, the priest presented them with a branch of ivy, symbolical of the tie which should unite them; and the omission of which, at the wedding of Proserpine, was said to cause the Cocytus to flow only with waves of tears.

The metamorphosis of Acetes's mariners into dolphins, and his vessel into a forest, by Bacchus, is too elegantly described by Ovid not to be recalled to mind when we see this climber ascending lofty trees.

"The mighty miracle that did ensue,
Although it seems beyond belief, is true.
The vessel, fix'd and rooted in the flood,
Unmoved by all the beating billows, stood;
In vain the mariners would plough the main
With sails unfurl'd, and strike their oars in vain;
Around their oars a twining ivy cleaves,
And climbs the mast, and hides the cords in leaves;
The sails are cover'd with a cheerful green,
And berries in the fruitful canvass seen;
Amidst the waves a sudden forest rears
Its verdant head, and a new spring appears."

Some ancient writers would have us believe that the ivy was first brought into Greece by Bacchus, from Thebes, which is said to have been the birth-place of the jolly god.

Alexander the Great, who could transplant whole nations with ease, could not, it is said, with all his efforts, make the ivy of Greece grow in the vicinity of Babylon. It is related that when he visited the mountain where Bacchus was supposed to have been brought up, that his army saw the ivy for the first time since they had left Macedonia, to over-

run the east; and that at the sight of this plant, which recalled the endearing remembrance of their country, they immediately began to make themselves crowns of its branches, and to sing hymns in honour of Bacchus.

Pliny tells us that when Alexander returned from India, all his soldiers wore chaplets of ivy on their heads; and it is generally supposed that the too frequent libations which the son of Philip made to the god of wine, caused his early visit to the shades of Pluto.

Crowns of ivy were consecrated to Apollo before the metamorphosis of Daphne into a bay-tree, and Virgil says,

> "Fierce tigers Daphnis taught the yoke to bear,
> And first with curling ivy dress'd the spear."
>
> *Past.* iv.

The ivy, which of old crowned alike the brow and the bowl of Bacchus, has been ingeniously used, in later times, to represent faithful friendship; and a sprig of this plant, with the pathetic device, "I die where I attach myself," cannot fail of being understood, as well as one which was adopted by the friend who followed the fortunes of an elevated exile, whose device was ivy entwining a felled tree, surrounded by the motto, "his fall cannot detach me."

It is recorded that Ptolemy Philopater ordered the figure of a leaf of ivy to be imprinted on the Jews who forsook their religion. When this heathen monarch visited Jerusalem, the Jews forcibly prevented his entering their temple; for which insolence the tyrant determined to extirpate the whole nation, and ordered an immense number of Jews to be exposed in a plain, and trodden under the feet of elephants; but, by a supernatural instinct, the generous animals turned their fury not on those who had been devoted to death, but upon the Egyptian spectators. This circumstance terrified Philopater, and caused him to behave with more than common kindness to a nation that he had so lately devoted to destruction, and on which account, we presume, he upheld their religion.

It is to be feared that we should be taken for a nation of bacchanalians, were all those who have dissented from the church to distinguish themselves by a sprig of ivy on their forehead.

We presume that the ancients merely selected the ivy, as emblematical of youth and freshness, to represent Bacchus who is thus described by Ovid:

"Ophelte heard my summons, and with joy
Brought to the shore a soft and lovely boy,

With more than female sweetness in his look,
Whom, straggling in the neighb'ring fields he took.
With fumes of wine the little captive glows,
And nods with sleep, and staggers as he goes."

It is but natural to suppose that the god who presided over their wine should be a favourite image, and that they should therefore hold the ivy in superstitious reverence. It was pretended by them that a cup formed of the wood of ivy, would prove the purity of wine, which, by means of its pores, would consume the wine, and leave the rejected water in the vase, free from mixture.

It is singular that the ancients should select a crown for the god of wine from a plant to which the wine is said to have so strong an antipathy.

"The prudent will observe what passions reign
In various plants (for not to man alone,
But all the wide creation, nature gave
Love and aversion). Everlasting hate
The vine to ivy bears."

It is easy to make ourselves acquainted with those supposed antipathies of plants, as by attending to nature we should find, that two climbing plants cannot well exist on the same spot; their roots being of a similar nature, would defraud each other of their natural nourishment, and the prop which they seek

to climb would be overpowered, and the vine would perish in the continual shade of the ivy; therefore, the one has been wisely ordained to flourish in the sun, and the other to grace the shade. Man cannot, therefore, bring together with advantage what has been separated by the Creator in infinite wisdom.

Plants are often extolled or condemned, as they are brought forward by celebrity or kept back by caprice. We introduce varieties whose virtues are undiscovered; and suffer others to languish uncultivated on the bosom of the desert, whose beauties or qualities have not been sanctioned by the hand of fashion.

The fate of man is similar. An accidental circumstance often sets mediocrity of talent upon a tottering pinnacle; whilst superior ability decays unseen and unknown in a neglected shade, or a single accident of fortune keeps him from the society he was ordained to ornament. Like the ivy, he can exist when he has fallen; but, like this plant, he produces neither flowers nor fruit, unless supported to a height above the level of lowly herbs.

Of the virtues of ivy little is known. Some pretend that it prevents intoxication; and hence it entwined the brow of Bacchus to

keep off the fumes of wine. Cato directs that it should be given to cattle when other fodder is scarce; and we have known it given to sheep with apparent advantage, at a season when the snow had buried other green food.

The ivy is, as generally as improperly, styled a parasitical plant. We consider it merely a fixing climber, and that parasitical plants are such, as not only subsist entirely on the juices of the branches of other trees, but which have no situation allotted them on the earth, as the misletoe and several others. The ivy draws its nourishment from the earth, as well as the oak or the elm to which it clings. The filaments which it sends forth from its branches are merely grapples, by which it fixes itself to the uneven part of the bark of trees or stone buildings; and that it receives no nourishment from these supposed roots is evident, for if the roots which enter the earth be destroyed, the plant will decay notwithstanding the numerous fixtures it has made, but not so when trailing on the earth; then these filaments become roots like other plants that are propagated by layers, and it can be separated from the parent plant without danger. The *Bignonia radicans*, Ash-leaved trumpet flower, adheres to buildings and trees by numerous thready fibres in the same

manner as the ivy; but this elegant North American climber has never been considered a parasitical plant. It is true, that the ivy is often known to fix its root in the decayed trunk of a tree or in the crevices of old buildings, but other plants do the same. We have found a hazel-tree growing on the top of a church tower at Henfield, in Sussex; an apple-tree on the leads of Romsey church, in Hampshire; a Scotch fir on a stone building called Gog and Magog, near Petworth; and we have gathered flowers of the valley, which were growing out of the crevices on the highest pinnacle of the church of St. Sulpice at Paris. These were all offsprings of accident and not parasitical plants.

That ivy must injure young growing timber by confining its trunk too closely, and by also drawing the same juices, is probable and generally admitted; but in some situations it has secured timber also by preserving the trunk from those severe frosts, which by congealing the sap and causing it to expand, often split the body of the tree, and thus render the timber only fit for fire-wood. We are not without instances of trees having actually perished, when they have been stripped of this protecting leaf, and suddenly exposed to cold.

In ancient times such a circumstance would

have been accounted for by telling us that the sympathy was such as to cause the death of the tree through grief.

The ivy was not a favourite plant with Pliny. He says it injures plants wherever it adheres, that it breaks sepulchres of stone, and undermines city walls; but with all our attachment to this great naturalist, we shall recommend it to the shrubbery, with the caution, however, of not planting it so as to overrun the walls of the dwelling, where it will cause damp, and create litter by the numerous insects that will seek its shelter. We would rather that the shrubbery should appear green from the dwelling, than that the house should be seen clothed in that colour from the walks. There are certain styles of building which admit it better than others; but we prefer even the Norman tower and the Gothic arch when unadorned with this climber, which breaks the harmony of the parts, and gives it too much the appearance of a clipped hedge, which is particularly conspicuous in the south front of Arundel Castle, which stands on a bold eminence surrounded by noble trees, and therefore is injured in its boldness by the ivy that has been added with so much care.

Ruined towers, broken archways, and un-

inhabited monasteries, are the works of man, with which it should be blended. It is also an admirable cover for walls and other fences which surround the shrubbery; and it may be properly used to ornament the lodges where the mansion is either in the castle or Gothic style.

We have often seen it give a picturesque appearance to cottages; but we also prefer to see a white cottage through the branches of green trees, than to look on a green-clad cottage in a naked plain. Plantations within view of the mansion, or the walks that surround it, are generally laid out more for effect than with an idea of the profit to be derived from the timber; and in such situations, particularly where evergreens do not abound, the ivy may be cultivated so as to add considerably to the beauty of the prospect, and even within the boundaries of the shrubbery, where other evergreens have been destroyed by the drip or shade of lofty trees, which should always form a back-ground, the ivy may be suffered both to cover the surface and climb the trunks to great advantage. When trained to a stake, and suffered to form a head, it becomes one of the most ornamental of all the evergreens; for the singular complication of its pliable branches, and

the vivid green of its foliage, together with its black clusters of berries, form a mass of beauty that is exceeded by few exotic plants. There is a singular character to be observed in the natural history of the ivy: it never produces flowers whilst trailing on the ground, but when it can climb to display its simple umbels, it flowers amply, and produces fruit abundantly; and so long as it can find support upwards, its stalks remain slender and flexible, but when it has reached to the top of its support, they shorten and become woody, and the top becomes bushy like a tree. Its leaves also take a different shape. They are no longer lobed as at first, but assume a more oval shape, and expand to a larger size: thus the plant seems to prune its branches when it would be no longer safe to ramble, and to spend its superfluous sap in enlarging its leaves.

Its principal time of flowering is in October; and the bees and flies seem to know that it is one of the last offerings that Flora will make them, by the eagerness with which they buzz around it.

The berries are not perfect before February, nor ripe before April; but between these months, the wood-pigeon, the thrush, and the blackbird feast on the fruit continually.

The ivy is found wild in most parts of Europe; but Linnæus observes, that it is by no means common in Sweden; Kalm remarks, that he never saw the common ivy in North America, excepting in one instance, against a stone building, which was most probably brought from Europe, and planted there. According to Thunberg, it is found in Japan; but he observes, that its leaves are never lobed there as with us.

Our nurserymen furnish us with a variety with white or silver striped leaves, and another with yellowish leaves, both of which may be ornamentally employed.

Modern practice has abandoned the use of this plant in medicine, but it is not long since the leaves were in use, to put over issues to keep them cool and free from inflammation. Pliny enumerates the various disorders for which it was anciently used; but he remarks, that in physic, the ivy is both doubtful and dangerous. A decoction of ivy leaves was formerly used to dye the hair of the head black, which was a colour the ancients seemed as anxious to possess as our modern grandmammas are to retain flaxen locks.

The roots of the ivy are used by leather-cutters to whet their knives upon.

The ivy is propagated by its trailing branches, which send forth roots at every joint. It is also increased by planting cuttings in a shady border, in the autumn, or by sowing the seeds in April, as soon as they are ripe, and which must be kept shaded and moist, or they will otherwise remain a year in the ground before they germinate.

JUNIPER—See *Pomarium Britannicum*.

END OF THE FIRST VOLUME.

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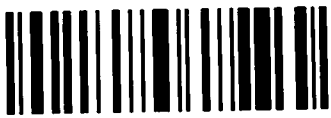
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